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NEW YORK UNIVERSITY SCHOOL OF RETAILING

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A Conceptual Model for Studying Customer Image

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Since everything about a store, from its odor to its merchandise handling, either attracts or repels a certain segment of the market, image research can identify a store's actual and potential customers. It can also suggest changes in the marketing mix, decor, service features, price range, etc., to increase the appeal to this particular segment. Image research succeeds to the degree that it increases the proportion of people entering the store in a state of being ready, willing, and able to buy. Thus image research performs a "gate keeper" function: nothing more.

The Research Task

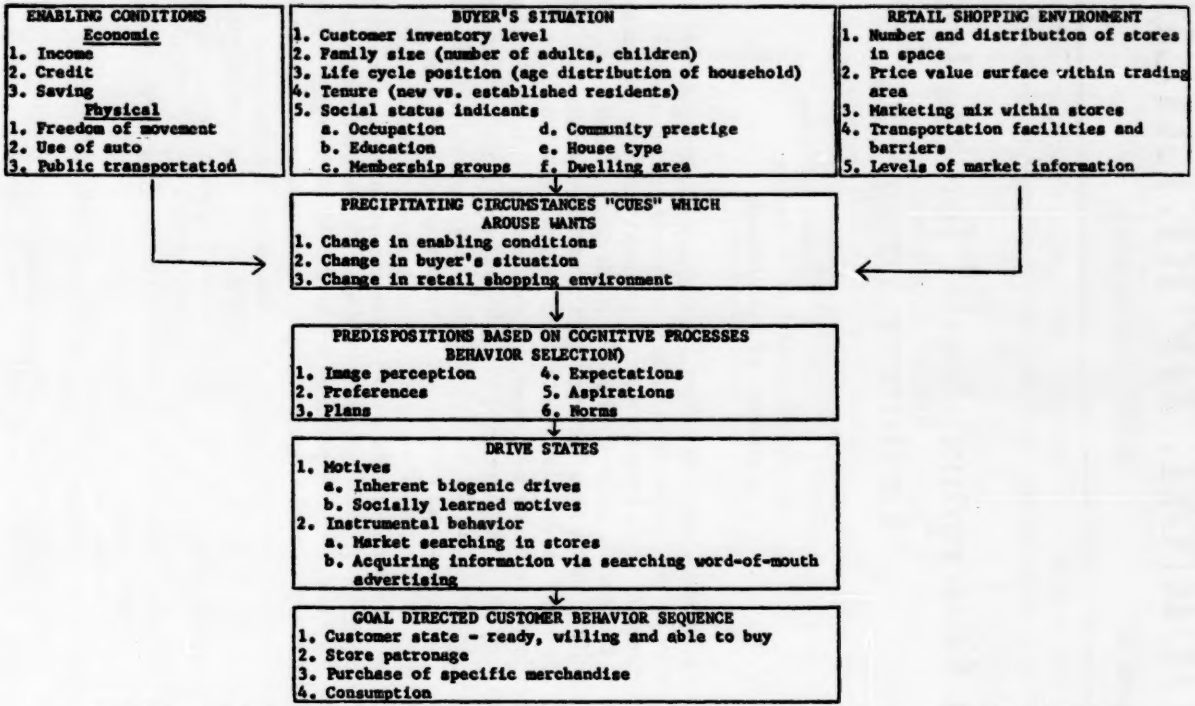
To measure the influence of store image on customer states with fidelity, a number of customer state determinants have to be measured simultaneously. In tracing the interaction between these other determinants and store image, a researcher must: (1) express these determinants in a mathematical system of equations or inequalities; (2) test the mathematical model against the criterion of predictive effectiveness; and (3) use it (if it tests out reasonably well) to predict the outcomes of simulated executive decisions under a variety of assumptions.

The purpose of this paper is happily confined to step one: presentation and explanation of the conceptual model required to measure the influence of image. The usefulness of this model in shaping the research program will vary, of course, with the size of the firm. Even for small firms, however, it should provide a superior method of organizing records already available as aids in balancing elements in the store's marketing mix.

The Model

The model consists of two parts shown in Figures 1 and 2 respectively. Figure 1 shows the relationship be-

FIGURE 1. DETERMINANTS OF GOAL DIRECTED CUSTOMER BEHAVIOR
(ARROWS INDICATE DIRECTION OF CAUSALITY)



Read "frame of reference" variables horizontally at top and "individual" variables vertically below first box.

tween image and other customer state determinants. Figure 2 shows major measurable determinants of retail store image as revealed by the Wharton Studies in Retailing.[1]

The first and most basic observation about the patronage determinant model is that it is a model of dynamic interaction in which the end result is capable of modifying input variables as well as the other way around. In this model image interacts with other predispositions as well as other determinants of customer state. Without a precipitating circumstance to trigger a drive state, however, image remains latent as a guiding force. Thus image is but one of a number of influences governing the consumer's actions. If customer behavior is sometimes contrary to what would be predicted from favorable store image responses, the answer may easily be found in the relative strength of image determinants, not the least of which is the operation of the principle of least effort operating through locational convenience. Or there may be frame of reference considerations such as income limitations that establish boundaries on the kinds of customer behavior deemed appropriate to a particular purchasing act.

It is highly important to recognize the interaction of store image with what are termed "frame of reference" variables in Figure 1.[2] Too often motivation researchers pose a problem as amenable to solution either by analysis of psychological typologies or by what is derisively called "nose counting," which is supposed to be inferior as an explanatory and predictive technique.

As Figure 1 shows, the choice is not between psychological methods or sociodemographic analysis but between numerous possible mathematical expressions which include *both* groups of variables. To look at psychological or economic considerations only is to reduce needlessly the accuracy of the predictions which could be made on the basis of more complete information about both. Figure 1 stresses the study of changes in all of these states if changes in patronage behavior are to be understood and predicted. To the extent that researchers do not employ dynamic interaction models they are making the hidden assumption that income, age, and shopping environment, customer inventories, and a host of other frame of reference variables are constant for *all* consumers. This is clearly nonsense, but nowhere in papers urging psychological research published by the behavioral scientists is this difficulty explicitly analyzed.[3]

A second distinguishing characteristic of the model in Figure 1 is the concept of customer state introduced originally by operations research analysts. It is especially helpful because the expected values of the outcomes can be measured empirically by a num-

[1] Correspondence with the author is invited concerning a bibliography of the Wharton Studies in Retailing along with code books that will enable interested persons to gain access to IBM cards for a number of mail, telephone, and personal interview sample surveys covering a wide range of shopping behavior. Inquiries may be directed to the author at the Wharton School of Finance and Commerce, University of Pennsylvania, Philadelphia 4, Pa.

[2] See William A. Mindak, "Fitting the Semantic Differential to the Marketing Problem," *Journal of Marketing*, April 1961, p. 33.

[3] See for example Ernest Dichter, "Seven Tenets of Creative Research," *Journal of Marketing*, April 1961, pp. 1-4.

ber of indicators which can then be built into prediction models. To be in a customer state an individual must be *ready to buy* due to precipitating circumstances. She must be *willing to buy* from a particular store because of certain expectancies embedded in her memory image. She must be *able to buy* due to economic and physical enabling conditions and other frame of reference variables.

Empirical measurement of customer state takes many diverse forms. First, are the verbal statements of intention to buy. Second is the record of frequency of visits to a particular store during some reasonable shopping interval. Third are the amounts of money spent in one store compared with its rivals. These and related measures can be examined to determine the degree of agreement among them before selecting the indicant or indicants to be used in actual field studies.

In addition to measures of persons "entering a customer state," measures should be made of persons "leaving a customer state" because of some action. For example, adding more store clerks and delivery trucks enables a store to take care of customers' orders more speedily. Yet it may force a rise in price that may, in turn, induce some customers to "leave the customer state." Many operations research analysts are content to measure customer birth and death rates as indicants of customer state. In dealing with so intangible a determinant as store image, however, psychological measures are needed at comparable levels of consciousness.

A third distinguishing feature of the model is the adaptation of Clark Hull's systematic behavior theory of learning within an environment of long-run determinants. These establish the limits within which image is operative. Such determinants include economic, sociological, and physical characteristics, fixed in the short run, but subject to long-run changes due to new precipitating circumstances.[4]

Reduced to its simplest form, the Hull behavior system postulates that an individual wants something (goal object), sees something (image), does something (instrumental behavior), and gets something (reward, reenforcement, and habit formation, or nonreward and discouragement from repeating the practice). This learning behavior must be carried on within the frame of reference supplied by the three classes of variables at the top of the diagram in Figure 1.

Among the frame of reference determinants is the retail shopping environment. Included here are the "marketing mix" variables subject to direct manipulation by the merchant who seeks to induce consumers to enter "customer states." Store location is perhaps the most powerful dimension of image and of patronage alike. Other shopping environment variables are treated as if each retailer had full independence of action. It is the clustering of stores at a location, however, plus the difference among competing stores in prices and merchandise assortments, that directs trade between areas and stores. These macromarket environmental variables are measurable. They present little difficulty to the retailer

[4] For a recent restatement, see E. R. Hilgard, *Theories of Learning*, Second Edition (New York: Appleton-Century-Crofts, Inc., 1956), Chapter 5.

FIGURE 2

THIRTY DETERMINANTS OF COGNITIVE DIMENSIONS OF STORE IMAGE

Cognitive Dimension	Determinants
Locational Convenience	Access routes
	Traffic barriers
	Traveling time
	Parking availability on arrival
Merchandise Suitability	Number of brands stocked
	Quality of lines stocked
	Breadth of assortment
	Depth of assortment
	Number of outstanding departments within store
Value for Price	Price of particular item (Z) in a particular store
	Price of item (Z) in competing store
	Price of particular item (Z) in particular store on sale day
	Prices of substitute products in substitute stores
	Trading stamps and patronage discounts in kind
Sales Effort and Store Services	Courtesy of sales clerks
	Helpfulness of sales clerks
	Advertising, reliability, usefulness
	Billing procedure, adequacy of credit arrangements
	Delivery promptness and care
	Restaurant, eating facilities
Congeniality of Store	Store layout
	Store decor and attractiveness of merchandise display
	Class of customers
	Store traffic and congestion
Post Transaction Satisfaction	Satisfaction with merchandise in use
	Satisfaction with returns and adjustments
	Satisfaction with price paid
	Satisfaction with shopping experience in store
	Satisfaction with accessibility to store

seeking to appraise his own performance as long as he is aware that while they are beyond his ability to control, they also influence customer behavior with respect to his store. Thus they must be explicitly introduced in functional equations describing customer behavior.

What about using image as a predictive variable within the conceptual model just described? Here we distinguish between the dimensions of image that *are* responsible for inducing a customer state and those which are not. Much psychological research has focussed on irrelevant dimensions that have little, if any, influence on patronage.[5] Even if we succeed in identifying the relevant dimensions, we are confronted with the further task of specifying their relative importance or interaction.

Researchers have not yet accomplished the first part of this task. Much of the literature reveals the delight of discovery of new variables which have a bearing on store image. However, management cannot wait for research to provide the answers. Management must daily subject its intuitive predictions to the test of the market place. Consequently, however imperfect their answers may be, researchers must provide *some* information on the relative importance of each image dimension as well as on the identity of the relevant determinants. Otherwise they cannot give guidance to retailers seeking to employ this concept in decision making. The purpose of the concluding section is to provide a foundation for such analyses.

[5] Proceedings of the Fourteenth Annual Conference, American Association for Public Opinion Research, *Public Opinion Quarterly*, Fall 1959, p. 426.

Determinants of Image

Research findings of the Wharton Studies indicate that six dimensions of image are relevant to customer patronage: locational convenience, merchandise suitability, value for the price paid, adequacy of store services, congeniality of the store, and satisfaction with the purchase after the transaction is completed. It is not easy to determine the relative importance of, or interaction between, these variables. Only a few low-level-generalizations can be ventured. Figure 2, however, shows thirty determinants of each of the image dimensions contributing to the desired customer state.

Figure 2 is intended to portray the relationship between cognitive dimensions of image and the determinants of these dimensions. Hopefully these will be useful in constructing questionnaires and observational forms for the collection of data. From the data, in turn, acceptance threshold levels can be calculated.

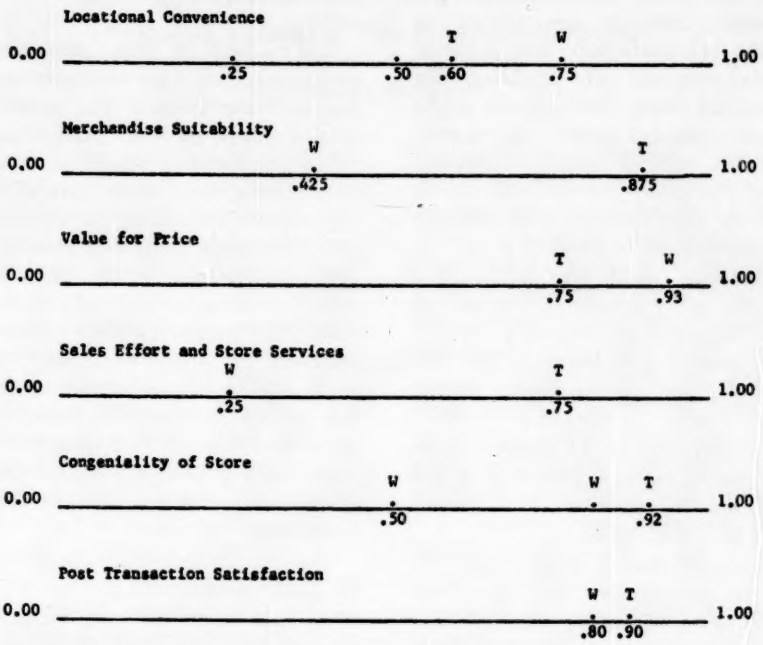
Once the preference threshold level has been reached for the relevant image variables, they can be expressed as expected values for population samples drawn from each distinct segment of the total market. The expected value, it will be remembered, is simply the proportion of persons indicating some behavior or other characteristic. It is a measure of average behavior. As for the influence of image determinants on customer states, preference thresholds vary among market segments. That is,

FIGURE 3

COMPARISON OF EXPECTED VALUES OF PREFERENCE THRESHHOLDS FOR CUSTOMERS WHO SPENT THE MOST MONEY AND THE WORKING MAN'S STORE AND THE CARRIAGE TRADE STORE, AND WHO CONSIDERED STORE "BEST"*

PREFERENCE THRESHHOLD = PER CENT OF CUSTOMERS NAMING STORE AS BEST

W = working man's store T = carriage trade store



*Percentages have been changes to conceal store identity.

customers exist in relatively different circumstances as measured by frame of reference variables. Thus the expected values of the image determinants shown in Figure 2 must be measured empirically for each market segment. Only in this way can they be used to develop predictive models.

Figure 3 shows expected values of the preference thresholds for the six dimensions of store image. To provide a contrast we chose the working man's store and the carriage trade store. As it happens, this illustration is based on department store patrons. However, we could have used discount houses, supermarkets, or any other retail establishments.

The data in Figure 3 are calculated from patronage in the store in which

the most money was spent in the year preceding the date of interview. Our measures of stores that people say they are ready, willing, and able to shop in are at variance with stores that they do enter. Thus the entry of consumers into customer states is difficult to infer from behavioral measures, and customer-state statistics are difficult to verify. It is particularly hard to obtain stable measures of psychologically antecedent states. This difficulty might be surmounted if we were able to convert to a personal interview consumer panel operation—provided, of course, that the costs involved would justify the expenditure of effort.

Customer "death rate" information is more easily obtainable. People tell quite accurately not only the stores that they stopped patronizing in the past year, but are quite articulate in explaining why. "I shopped in ———'s for twenty years until I bought a girdle that wasn't right. I took it back and they wouldn't exchange it. I haven't been back there since."

Suggested here is a fresh approach to the measurement of transitional states involved in "birth–death" relationships. We have in the design stage a predictive model using all the determinants of image in Figure 2. This should tell us indirectly, by structured nondisguised techniques, whether the consumer seems to be entering a customer state for a store she has not previously patronized, even if she herself is unable to predict what she will do.

Also on the agenda of unfinished business is the weighting of the contribution of each of the determinants of the cognitive dimensions shown in Figure 2. Rather than delay our research program we have acted as if the measures we have are reasonably close approximations to situations of consumer choice. In Figure 3 location is prepotent among the perceptions guiding shoppers to one store or another.

Our research has shown some interesting variations in the determinants of locational convenience. For example, we find that people in the extreme suburban communities regard suburban communities closer to the core of the city as central shopping places. Similarly, the people living near these suburban centers look to the downtown store for the same kinds of merchandise. Thus judgments of the "best assortment of women's clothing" are made relative to the distance between the nearest shopping facilities and those at a distance that does not involve passing through a second shopping center. Clearly a "Reilly's Law" relationship holds here.

However, a second determinant of locational convenience is the access route to a store. We have found numerous well-to-do New Jersey shoppers bypassing our center city stores because turnpikes will carry them directly into a swanky cluster of high fashion suburban stores on the outskirts of Philadelphia. In contrast to the residents of outer suburbs who must pass through a more centrally located suburban shopping center, the New Jersey residents have the opportunity to bypass center city traffic lights, congestion, and parking prob-

(*Continued on page 54*)

Taking the Mystery Out of Electronic Data Processing*

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The inner workings of electronic data processing need not be understood in order to use the equipment, any more than we have to be television technicians in order to enjoy our home sets. But to understand on the surface how a computer works, we can compare it, first, to human operators, and then to mechanized data processing.

The five essential components of a computer are these: *input, storage, control, program,* and *output.* To understand these, compare them to the steps a human billing machine operator takes in preparing a statement.

The *input* occurs when the girl keys the operation. *Storage* is present in her drawer of reference materials, such as tables of interest charges. The *control* over the entire billing operation is exercised by the girl herself. The *program* consists of the instructions which she has—to do this under certain conditions; to do something else under given other conditions. The *output,* of course, is the statement.

In mechanized data processing, we have similar basic elements. *Input* here is the punched card containing the basic data as prepared for the machine. *Storage* is relatively limited, and is referred to as external programming simply because the wiring is outside of the machine. *Control* is exercised by the human beings who move among the various sorting, collating, or tabulating machines to see that they are functioning properly. *Output* is the resulting punched card with original data correlated according to instructions.

In electronic data processing, *input* may be either a punched card or some higher speed input. Then there is *storage.* Here the significant difference is that it is largely internal, practically analogous to the human brain. That is, it represents internal storage (or memory) to man, whereas the desk drawer contains his "external" or reference storage. "Memory," or, if you like, storage accepts information which can be placed in a machine to be retained there.

Electronic data processing also requires a *program,* but here there is a difference. It is internal, much like a person's memorizing an exact sequence of instructions. *Control* is also signifi-

* Based on a series of lectures delivered by the author at the University of Detroit during the academic years 1956 and 1957. At the time of writing this article, the author was manager of the Retail Data Processing division of Touche, Ross, Bailey, and Smart.

cantly different because the human being is no longer required to move among many machines. The computer operates with a minimum of human intervention.

Programming the Computer

Programming, as indicated above, is simply telling a computer what to do. It is similar to giving specific, detailed, step-by-step instructions to your billing clerk. You must write out its instructions in precise detail, providing for *all* alternative courses of action in order to provide for any contingency.

The computer derives power from its built-in ability to make selections, which seem almost like logical decisions. These concern magnitude, equality, and the like. Obviously, whatever logical ability seems to be coming from the computer has come originally from the human beings who designed it, and currently from the person who is programming it. When programmed correctly, the computer can compare two numbers, determine if these are equal, and if they are, do one thing, or if they are not, do something else. Given certain conditions, it can transfer numbers, and in other conditions refrain from transferring. Finally, when certain conditions are met, it can modify its own program.

Formerly, every step in machine language had to be defined in great detail. The trend today is away from programming in "absolute" machine language. Soon it will be possible to write programs in the English language, leaving translation into machine language to the computer.

Storage (Memory)

Storage, it will be recalled, is comparable to the interest tabulation tables kept in a desk drawer by the billing machine operator. Electronic data processing has a sizable amount of "storage" as contrasted to the contents of the average desk drawer, or certainly to the "storage" of mechanical equipment. Large storage is necessary to "remember" the program, provide a place to keep data placed in the machine, and provide for manipulating information based on the program.

Storage today consists primarily of magnetic cores. Other forms exist too, however, such as disc and tape storage. In the first of these, a disc containing information in coded form revolves at great speed. An arm, like the arm of a phonograph, picks up the information as it passes around.

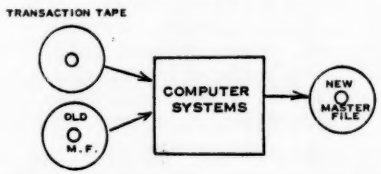
Magnetic tape is quite like a series of punched cards put together. Its main difference from punched cards or punched tape is that we do not see the information coded on iron oxide. The disadvantage of not being able to see the data is not serious because:

1. Some tape units, after "writing" on tape, immediately "read" the data just written and will signal if the data was not written correctly.
2. Tapes used as input one day are saved, not reused the following day. Thus they are available in the event it becomes necessary to reconstruct data due to lost or faulty tapes.

But the main advantages of having information on magnetic tape as opposed to storing it on punched cards or paper tape are as follows:

1. Where large storage is required, costs may be considerably lower with existing magnetic tape equipment because it is possible to place 556 characters per inch on magnetic tape, whereas, on paper tape the density is ten characters per inch.
2. Magnetic tape is reusable. Information placed on magnetic tape at one time may no longer be of value at a later time. This tape may then be erased and be used at another time.
3. Magnetic tape allows much greater flexibility. Again, let's go back to the punched card. Eighty columns of data are available. Therefore, a particular item consisting of 240 characters of information would require four punched cards, because the item identifying information has to be repeated for each of the cards. Tape, being continuous, permits the record to be identified only once, at the beginning.
4. Finally, magnetic tape permits considerably less human intervention. Ten million characters on a single magnetic tape that can pass through the computer system in about three to four minutes represent quite a bit of data—especially when compared to punched card input.

CHART I



How does all this work? Actually it is relatively simple. A computer system is illustrated below with daily transactions on magnetic tape being read into it. While the master file is being read into the computer from another tape unit—to be updated in the computer—the new master file is produced as an output of this operation. (*See* Chart I.)

Old master file data on magnetic tape were not destroyed while being read into the computer system. So both the transaction tape and the old master file will be kept until tomorrow in case something goes wrong. One tape unit used today writes on tape at a density of 556 characters per inch, moving the tape at a speed of 120 inches per second to provide input at a rate of more than 66,600 characters per second.

The Input Problem

There are generally four means of input available:

1. The most sophisticated means is on-line input to the data processing system. For retailers, this suggests the use of point-of-sale recorders all around the store. At the time of a sale, the transaction can be calculated automatically, while simultaneously, the information for the customer and possibly for inventory is updated centrally. This is wonderful, except for one thing: the initial investment and related costs.
2. The second means of input is source document input, involving automatic character recognition. For example, journal tapes or sales checks may be used as direct input to a data-processing system. Automatic

character recognition techniques, both magnetic and optical, are being successfully employed today. More general use, however, must await equipment designed for data-processing installations with smaller volumes.

3. The third means of input is created as a by-product of normal operating procedures. For example, as a result of a cash register operation, punched paper tape is produced. This paper tape may then be used to up-date the master file. This, unfortunately, is expensive, requiring equipment such as the point of sale recorders, mentioned above.
4. The fourth means, and the crudest one, involves document translation. Data from the source document are key punched on paper tape or punched cards. Unfortunately, this is time consuming, error generating, and consequently expensive. Yet this method is presently the most economical and error-free procedure used for practically all input to E.D.P. equipment.

Educating Computer Users

The rapid emergence of electronic data processing as a management tool finds most people unfamiliar with its use. Being unfamiliar, they are also afraid.

What is the reason? On the one hand there have been wild predictions, saying "This is the end of the punched card era." Obviously this is not true. On the other hand, there are many reports of electronic data-processing installation failures. These generate the feeling that electronic data processing is not for business, but rather a laboratory tool. Again this picture of the situation is erroneous.

Two things are required from progressive management people in their use of the computer. One is a basic appreciation of electronic data processing insofar as its capabilities and limitations are concerned: its historic problems and its pitfalls. Another is an objective analysis of this new tool as a possible means of reaching a stated objective.

Robert Tannenbaum, assistant professor of the University of California, has described the human stages of accepting change as follows:

> For people to accept new ideas or methods there are probably three different things that have to occur. The first: it is important that people come to understand the reasons for the change. Second, people have to see that the change is going to be good for them. And third, some new behavior will be called for on their part. This consists of perhaps new attitudes and new skills.[1]

Retail Objectives

Now what are the possible reasons for desiring a change to electronic data processing:

—First is reduced cost
—Second is better information—not necessarily more information, but better information
—Third is greater accuracy
—Fourth is better control

[1] Robert Tannenbaum: "Overriding Barriers to the Acceptance of New Ideas and Methods." *Proceedings of the Annual Industrial Engineering Institute.* Los Angeles, California: University of California, February 1952.

Actually, only the first of them, the cost aspect, can be measured. Here we are talking of:

1. The displaced costs: that is, after an electronic data-processing system is installed, certain people and machines may be released or used elsewhere.
2. The second are incurred costs. Here we have such things as programming costs, site preparation, conversion, and cut-over costs.
3. The third type of costs are the system operating costs.

The justification for electronic data processing depends on our objective. Are we interested in tangible returns with a quick pay-out? In this case, the accounts receivable application might be indicated? Or do we seek intangible benefits through advanced merchandising techniques? That is, are we interested in a quick return on our investment or a long-range return?

Regardless of which objective is sought, the question has been raised: is electronic data processing good only for big stores? Are they the only ones who can justify the expenditure? Well, there is no clearcut answer for that. One large store has failed to the tune of $100,000 a year in its objective to save money. Another store, a small one, has been successful in using the information obtained for better merchandising.

Economics of Computer Use

Since electronic equipment provides an effective answer to data-processing problems, the question might be raised: "Why isn't everyone using it?" The answer primarily is one of cost: not only the cost of the original equipment but also the cost of input preparation and editing. Even the executive who decides to rent rather than purchase his initial equipment faces the decision of retraining his employees, or having to let some workers go and rehire others. All this is expensive.

These initial costs must be weighed against how well and how quickly the electronic equipment will pay for itself . . . and to retailers, this means how closely is the electronic data-processing system tailored to its particular functions: to accounts receivable, merchandising, unit control, and so on. With 60 percent computer utilization, but 100 percent cost, computer rental is not attractive. But whether one buys or rents, this dilemma remains.

At least this was the thinking until recently. Now there are computer systems available that seem more closely tailored to specific retailing tasks and to employees who can be trained as operators. Cycle response time is an important factor here. For example, we do not really need to purchase equipment that will permit us to know the status of all customers' accounts the very moment that they make a purchase. How many stores have this information even four days after a sale? They would be happy indeed to have the information the day *after* the purchase, a saving of three days.

Another important factor is information cycle time. That is, certain reports are needed once a week for unit

control, while for statement purposes reports are needed once a month.

Changes in the Cost Picture

Computer systems are becoming less expensive, and at the same time, more powerful. In 1958 a particular large-scale electronic data-processing system cost $1,600,000. Two years later equipment was available with comparable, possibly even superior, capabilities, for $848,000, almost a 50 percent reduction.

This raises the question of obsolescence? If systems are getting progressively less expensive, would it be better to sit back and wait? Trouble is, you might wait indefinitely. You would always be waiting for next year's model.

The most helpful attitude is to recognize that there are two types of obsolescence. The first is economic obsolescence. The second is technological obsolescence. When we recognize this distinction, there is no problem in facing obsolescence.

In the above example, technological obsolescence occurred in two years. The system that was purchased is technologically obsolete today. But it so happens that the system has reduced operating costs $500,000 a year for the people who installed it. If they begin installing a new system now, it may take them several years to get to the point where they are at present. For installation still requires a year or more. Thus it could hardly be said that this technologically obsolete system is a bad one for the company. The user judges from his practical operating objective, not from the manufacturer's objective of constantly improving equipment and lowering its cost.

Problems of Authorization and Inquiry

Another problem facing potential retail users of electronic data processing is authorization of charge purchases. If you cannot see the recordings on electronic tape, how do you know when a customer has exceeded her charge authorization? Admittedly this is a problem, but it is not completely solved by existing systems either.

And what about customers who come in to say, "I am going to Hawaii tomorrow and want to pay off my account. How much is my balance?"

To answer such a question with electronic data processing is indeed difficult. But how often does it arise?

After a two-week test last year in a major store on the west coast, inquiries were found to fall into three classifications, according to source:

Mail: 30 percent (this varies, but is fairly representative)
Phone: 68 percent
Personal inquiries: 2 percent

The mail inquiries obviously present no time problem. For the 30 percent of the inquirers who contact the store by mail, we can interrogate the computer system during the next day as the master file is passed through.

This leaves 68 percent of telephone inquiries that still have to be answered. These may be analyzed as follows:

1. Forty percent of the telephone inquiries are requests for balances. These are not often

persons who want to pay off "tomorrow." Usually they have simply lost their statement and wish to avoid interest charges. Ninety-nine percent of this 40 percent make their inquiries *after* statements have been sent out. Thus the microfilm can be searched without bothering the computer system at all. Only 1 percent of this 40 percent (or .3 percent of all inquiries) actually falls into the critical classification of "I want to pay my account because I am leaving town."

What do you do with these inquiries under the present system? You tell the person that "as of today" his balance is a certain amount. That is the best you can do. The same approach can be used with the computer system.

2. Of the phone inquiries, 20 percent concern disputed balances. Here again, the microfilm may be used.
3. Ten percent of the inquiries concern new accounts and thus do not involve magnetic tape searching. The questions here may be answered outside the computer department. They fall into categories like: "Where and how can I open an account?" Or, "Has my account been approved?" Or, "I went to your store yesterday with my plate request, but I do not have my plate today."
4. Twenty-eight percent concern collection matters. Here the information will be found in the collection department records.
5. The remaining 2 percent do not concern the computer. Included here are questions such as, "What is the closing date of my cycle?" or "How do you compute service charges?"

The Billing Problem

How does electronic data processing affect the problem of country club versus descriptive billing?

Historically, we had descriptive billing until after World War II. But now that customers have learned to accept country club billing, there may be reluctance to return to descriptive billing.

There are some advantages connected with descriptive billing. With an electronic data-processing system it is economical. The paper handling and lower mailing costs are less than with the country club system of sending out saleschecks. Also, there is better control.

We should be aware of the possible disadvantages, however. One possibility is an adverse customer reaction. Now that customers have accepted country club billing, they may make increased inquiries about a change. Yet the A.M.C.[2] study revealed that only two people out of 2,000 objected to, or questioned, a return to the descriptive statement.

In addition to possibly adverse, or time-consuming, customer reaction, there is a second problem. In order to provide descriptions, we must get merchandise information into our system. There is some question as to what level of description is required: department level or class level. The more information we need, the more costly it will be to obtain.

[2] Associated Merchandising Corporation, *Electronic Data Processing Study*, 1955-1959.

Several stores have already started the return to descriptive billing. Others are sitting back to see what happens.

Twelve Pitfalls in Computer Installations

It is useful to recall some of the pitfalls that have occurred in connection with computer system installations. These include;

—First, there is the crash program. Why is it that retailers often postpone a decision and then, having made it, insist on instantaneous action? The penalty for such haste is an inadequate system study and, in many cases, failure to challenge the proposals submitted by manufacturers. Both these situations result in an unhappy awakening as to costs and efficiency when the system is cut-over.

—The second pitfall, also related to time pressure, is failure to test procedures.

—The third is lack of proper attention to paper handling. Such carelessness often turns out to be a bigger problem than computer processing, since the latter is pretty well understood today. More attention must be paid to what goes into the system and to what comes out.

—The fourth pitfall is underestimating the need for error control, including both correction procedures and personnel. In one case a store was certain that one or two persons would be sufficient to handle this function. A year after cut-over, the error control group still consisted of nine persons.

—The fifth pitfall is attempting to convert billing machine operators to keypunch machine operators without adequate aptitude testing and training.

—The sixth is not providing for peak loads and expansion. It is not wise to buy or lease a system that will be inadequate next year because of branches being opened.

—The seventh is starting conversion during the fall season, before the Christmas rush.

—Eighth is lack of sufficient management interest and participation in the new system. This can be a serious handicap. It is important to get all levels of management interested in order to gain everyone's support.

—The ninth is poor planning of physical facilities, particularly with reference to growth planning. Attention must also be paid to proper communication and control of all elements of the proposed system.

—The tenth pitfall is planning a night shift operation for keypunching. It is difficult to find experienced girls who are interested in working the graveyard shift.

—The eleventh pitfall concerns translating present procedures to electronic data-processing operation. A computer is a new, sophisticated, and powerful tool. If not used to best advantage, it will simply help you to do what you are already doing, but faster. If you are doing a poor job now, you will continue doing a poor job, but at greater speed.

—The twelfth pitfall is not considering audit and control implications until reprogramming becomes necessary. It is costly

(*Continued on page 55*)

New Developments in Automatic Vending

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Automatic vending machines will cause the greatest revolution in modern merchandising methods since the invention of the cash register—*if* one accepts the opinions of a great many important retailing executives.

Item: Lincoln Theismeyer, president of the Pulp and Paper Research Institute of Canada, speaking in 1960 before an international conference in Tokyo, Japan, said: "In the near future American men may be buying their shirts made out of paper from vendors for 25 or 50 cents . . . virtually every hotel lobby will have a paper shirt vending machine."

Item: James A. Suffridge, president of the Retail Clerks International Association, in a 1960 appearance before the Joint Economic Committee of Congress, said: "Clearly, with the development of automatic vending machines the possibility of a completely automatic retail store is virtually upon us . . . selling goods to shoppers . . . who never see a clerk or a check-out counter."

Item: Frederick L. Schuster, chairman of the board of Automatic Canteen Company of America, at a press conference to introduce a new multipurpose vending machine, said: "This new marketing concept can automate up to 90 percent of supermarket operations . . . the machine makes possible the automatic vending of staples, canned goods, meats, drugs, sundries, textile products, housewares, or ready-to-eat hot foods. . . ."

So runs the hyperbole extolling the virtues of the automatic vending machine as the savior of beleagured, profit-hungry retailers and frustrated, embattled shoppers. In their more enthusiastic visions of the future, some business reporters foresee multiproduct vending machines replacing hundreds, even thousands, of retail clerks. No longer will personal selling be needed for repetitive, low-priced, widely accepted and understood products. Vending machines, they say, will be found on nearly every street corner, like telephone booths. They will appear in the front of every shop, or in the lobbies or parking lots of every department store or supermarket; in the basements of apartment buildings, at the gates of factories, at airports, bus terminals, subways, along high-traffic streets, etc., etc. The products they can merchandise are said to be unlimited.

Vending, some writers say, is simply a logical extension of self-service. It has been proved that people are as concerned with convenience in their shopping as with quality and price; vending gives time, place, and speed-of-shop-

ping convenience at a very slight price increase. Look at vending sales of cigarettes and soft drinks! And now the newly developed currency acceptors have broken the price barrier that hampered the early growth of department and grocery store vending and kept it in the nickle-and-dime business.

Deeply concerned as retailers are with narrowing profits, rising labor costs, and limited areas for expansion, they are naturally interested in the promising new developments of automatic vending. Consumer enthusiasm is to be expected, too, in this age conditioned to revere automation, electronics, and push-button living.

But inherent in this exuberance is the danger of letting enthusiasm color rational judgment. It is imperative, therefore, that we step back a moment from this headlong rush to vending, take off our enthusiasm-tinted glasses, and attempt to analyze what is really happening in this new industry. Only by a reasoned independent survey of the current situation can we hope to assess the true growth potential of this new retailing phenomenon.

What Is a Retail Vending Machine?

It is not simply a semantical diversion to pose the obvious question, "What is a vending machine?" The answer provides a number of clues in our attempt to locate outer boundary limits to the machine's long-run usefulness.

The American Marketing Association defines "Automatic Selling" as: "The retail sale of goods or services through currency-operated machines activated by the ultimate consumer–buyer." [1]

This definition seems to envision an automatic selling machine as a device operated by means of, or after, the deposit of proper legal tender [2] and would include penny scales, parcel lockers, peanut machines, Horn and Hardart automatic restaurants, etc. The definition, then, is too broad to provide a basis for discussing the sale of retail products for home consumption, the area most interesting to grocery, variety, department store, drug, and discount house executives.

Vending machine sales can be broken down into three main categories, each exhibiting the unifying characteristic of cash-handling automation:

1. Sales of products destined for home consumption [3] (groceries, drugs, department store merchandise, etc.).
2. Sales of products for on-location consumption (penny candy, cigarettes, soft drinks, sandwiches, snacks, full-course meals, etc.).
3. Sales of services (telephones, parcel lockers, penny scales, kiddie rides, etc.).

The last two of these categories are widely used in stores today, and their value has been clearly proved. The first category contains the most unused po-

[1] *Marketing Definitions*, compiled by R. S. Alexander and the Committee on Definitions of the American Marketing Association. Chicago: American Marketing Association, 1960.

[2] Though we speak glibly of vending's relationship to the cash-handling function, its long-run importance may be in systems using other forms of legal tender. Experiments have been conducted in recent years using credit cards, special discs, personal keys, etc. to activate the vending mechanisms.

[3] The phrases "for home consumption" and "take-home products" are catch-all expressions used to differentiate items usually held for consumption away from machine location at later points in time.

tential; thus it is the primary concern of the present article.

Home Consumption Products

Category one can be broken down further into: (*a*) sales from single-purpose vendors (pocket combs, ice, cartoned milk) and (*b*) sales from multipurpose vendors. Since the second subcategory will have greater retailing impact, it will be treated in more detail here.

However, we must first add one further clarifying refinement to our definition of the vending machine. The vending machine as we know it today is free-standing, self-inventorying, and requires no manual restocking between transactions (as does the Horn and Hardart Automat). While we have chosen pragmatically to add this refinement to our definition, a more exact and logical definition would not exclude machines whose inventory was located remote to the machine, but delivered automatically to the point-of-purchase. The implications of this fuller definition will be considered later.

Vending Company Testing

Of the four major companies presently committed to the manufacture of multipurpose vending machines, each has its own idea of what constitutes vending's strongest potential. Grocerette Vending Machines, Inc., of Long Beach, California, is the only one of the four that specializes in take-home vending machines. Its basic machine is a ten-selection, weather-proofed grocery vendor, available refrigerated or nonrefrigerated.[4] Merchandise is displayed in a showcase above the activating levers, as in the ordinary candy or pastry machine. The machine is coin-operated only and will vend for prices from five cents to $1.14. The most successful locations for these highly mobile and product-flexible machines have been in apartment houses, trailer courts, gas stations, and bowling alleys.

The machine was tested in early 1960 in Southern California. Test period prices were set to give a 40 to 50 percent markup on cost margins well above comparable supermarket labels. Jay Sullivan, president of Grocerette, claims that customers are willing to pay this premium for the convenience of purchasing from machines. Mr. Sullivan also claimed "a tripling of sales" during a test period of about six months.

Tests with the Grocerette machines are now under way in Toronto, Ontario, in cooperation with a major Canadian supermarket chain.

The Vendo Corporation of Kansas City, Missouri, has announced plans to carry out a full-scale test of the market for vended grocery products on a twenty-four-hour basis. It will construct on a yet-to-be-chosen site a "Superette" of approximately twenty-five vending machines. Four models in the installation will be entirely new, designed mainly for the bulky and awkward items that present most difficulties to present vending equipment.

Also to be tested here is a coin-operated rack merchandiser selling a wide variety of cosmetic and hardware

[4] Indications are that "sister" drug and hardware vending machines will be available in late 1961 or early 1962.

items, packaged in plastic pouches mounted on cardboard. This machine marks an important departure for automatic vending since it allows customers, in a sense, to touch the goods before deciding on a purchase. Most of the other machines in the superette will be converted ten-selection Visi-Vend cold or hot food venders, machines that have served as basic equipment for Vendo's past general merchandise experiments. It is expected that some of the experimental equipment will have currency acceptors.

Automatic Canteen Company of America, headquartered in Chicago's Merchandise Mart, is tackling the new market from two directions. It has developed a mobile, free-standing general purpose merchandiser intended for street corners or apartment house locations, using a conceptual approach similar to Grocerettes. Canteen has also announced its "Dial-a-Sale," which it claims can automate up to 90 percent of supermarket selling operations.

The general merchandiser offers the customer a selection of 130 items by having each 13 unit-high column of compartments advance at the press of a button so that the customer can see (and have the choice of) the entire contents of the machine.

"Dial-a-Sale" is a development of Canteen's Tonomat plant in West Germany. It features a telephone-like dial for merchandise selection and a currency device accepting $1.00, $5.00, and $10.00 bills. The customer "gets the merchandise he sees," a basic concept in both Canteen's and Vendo's philosophy. The basic machine can be redesigned for any compartment size, and units can be operated in indoor or outdoor locations, singly or in machine multiples. They can take on the functions of one or more store departments or operate separately as independent "satellite" outlets.

Universal Match Company of St. Louis, through its Unimatchco division, is responsible for much of the practical research in take-home vending. Its work with Macy's New York, Sears, Montgomery Ward, and Rich's in Atlanta, has provided considerable basic information for the use of vending in department store operations. The tests were all carried out with single or multiple installations of the company's "Unimatic Merchandiser."

The Unimatic Machine is a highly sophisticated piece of electronic equipment, seven feet high by eight feet long. It offers thirty-six selections and incorporates a bill acceptor for $1.00 and $5.00 bills, a totalizator, and a change-making mechanism. Merchandise is permanently displayed in show cases on each side of the control panel. The customer inserts coins and bills and can continue making purchases until her "credit," as shown on the totalizator runs out, or until she elects to take her change. Each product has an inventory of nineteen units in the machine that can be multiplied by electronically coupling various stock columns.

Wittenborg, Inc., until acquired by Universal Match Company, was a fifth competitor in the take-home field. Wittenborg has long been regarded as a quality manufacturer in the vending industry. Its basic machine is of European invention and bears considerable resemblance to the Horn and Hardart Automat equipment. Wittenborg ma-

chines have seen considerable use in Europe, (especially in Scandinavia), where take-home vending has much wider acceptance because of strict closing hours and licensing laws for retail outlets. Bea-livs, a Swedish food store chain, recently opened a huge bank of Wittenborgs along 100 feet of a main street in Stockholm, selling food items to an estimated 250,000 daily passersby. The battery has 1,515 compartments, 492 of them refrigerated. As a small importer, Wittenborg, U.S.A., has held back from the take-home market here. It is expected, however, that the new merger will encourage Universal Match to use Wittenborg machines to broaden its machine line, thus testing out the market for these smaller, more mobile machines.

The first major test of the Unimatic machine was at Macy's New York in the summer of 1960. The offering then was limited to two products: men's T-shirts and boxer shorts in three sizes, all offered at one price, 97 cents. Macy executives said at the outset that the test was designed simply to see "whether the machine works," *i.e.*, would such a highly complicated piece of equipment break down under the onslaught of "unscientific" New York shoppers? The test machine was located for four weeks in the third floor Toy Department before it descended for its last two weeks to the second floor men's wear department. The only results released show that, at the time of removal in mid-August, the machine was making 100 sales each six-day selling week and was functioning technically to everyone's satisfaction.

Later in the summer Montgomery Ward placed three Unimatic vendors (on loan) in three catalogue stores in the eastern United States to sell men's T-shirts, athletic shirts, briefs, and boxer shorts in a range of color and size selections. Two prices were offered, $1.00 and $1.25. Results of these tests have not been made public, although it is known that the machines have been removed. Recently, in an apparent continuation of their test program, the company placed a 53-selection bank of machines in Chicago's La Salle Street Railroad Station to sell department-store type merchandise aimed at commuters and other travelers. The company feels it is too soon for any conclusions to be drawn regarding this operation.

The Rich's Experiment

The most ambitious department store vending test since Filene's venture in Boston in 1950 [5] was that carried out by Rich's of Altanta during the winter of 1960-1961. Because of its scope and significance, this project merits detailed consideration.

Early in 1960 executives of Rich's became interested in the unknown potential for automatic vending in department stores. They believed that it was in the interests of their stockholders, their customers, and the trade generally to investigate any retailing innovation that promised to improve operations either from a convenience or an efficiency standpoint. Universal Match, to cooperate fully in a major experiment, provided the necessary machines and technical help in return for

[5] See Martin V. Marshall, *Automatic Merchandising* (Boston: Division of Research, Graduate School of Business Administration, Harvard University, 1954).

Rich's merchandising and promotion know-how. The machines to be used were pilot models (the Macy's unit was a prototype) estimated to cost $40,000 each to produce.[6]

During the summer of 1960, Universal's newly formed Unimatic Division, under H. F. Sackett, worked at adapting their machine for a proposed basement installation. The Rich's merchandising people under Alvin M. Ferst, Jr., assistant vice president for store operations, carefully evaluated every piece of merchandise in the store considered of a size and price compatible with machine capabilities. Package size was to be 1½ x 4 x 10 inches, and price was to be up to $9.00. A special departmental merchandise manager was assigned the vending experiment to add to his regular duties in two of Rich's downtown departments. The store's initial intentions in experimenting were: "(1) to determine the acceptance of the concept of machine selling rather than its sales ability, (2) to find what goods customers will buy from a machine, and (3) to get some general approximation of the costs entailed in running a bank of such machines."

In late November a significant change in plans was precipitated when Rich's became the focal point of a number of Negro lunch counter "sit-in" demonstrations. The decision was made to close the eating facilities on the second-floor bridge joining two parts of the downtown store and to go ahead with the vending experiment in this now available high-traffic area. (The basement location had been ruled out earlier due to space limitations.) Subsequently a bank of six Unimatic machines was installed on the bridge on December 5, 1960, where they remained for 13 weeks until March 2, 1961. Midway in the test, on February 13, two machines were removed and the remainder canted to test the sales effects of a nonuniform machine layout. At this time also, a bolder display panel background was installed.

For the first ten weeks one machine was stocked only with hosiery (a persistently tested vending item) and one other with women's scuffs and gloves. The original "line-up" also had one machine for men's socks and handkerchiefs, one for cosmetics, one for men's accessories and candy, and one for ladies' jewelry, leather goods, and handbags. Later machines were restocked to test drugs, stationery, household items, brand name children's socks, women's brassieres, and packaged cookies. No machine assortment was left unchanged longer than a month, but Rich's specified a minimum of two weeks as a "fair" test for each item. Prices ranged from a low of 25 cents to a high of $6.90.

Top selling item before Christmas, by a good margin, was women's scuffs, priced at $1.19 a pair. Over 500 units were sold during this period, but after the holiday the rate dropped to $10.00 a week and the scuffs were replaced by other items.

Rich's was generally disappointed with sales results from the machines. Canting the four machines had a noticeable impact on sales but not sufficient to warrant retention of the ma-

[6] A Unimatchco representative was quoted in the January 1961 issue of *Vend Magazine* as "guessing" that full production cost would be one-third of this, although units would be available only on a lease basis.

chines in such high-value space. When a "sit-in" agreement was reached, the store could not in good faith refrain from reopening the highly profitable lunch facilities. They did transfer two machines to a location outside of their Belvedere Plaza store where sales of packaged candy and drugs were more encouraging. The experiment was terminated March 30, 1961.

Comment

These early experiments have thrown light upon a great many of those sticky problems that make it difficult for any new invention or innovation to get off the ground. Much more is now known about how to package vended products; how to display and price them; how and when to service the machines; how to go about selecting vendable products; what consumer reactions to expect; how to anticipate consumer preferences; what costs will be encountered in full scale operations, etc., etc.

Such early testing for improvements in *technical operations* are essential first steps, but we must remember they have not been primarily tests of *selling power*. Ignoring this important distinction has caused many of our most enthusiastic vending boosters to become prematurely defeatist.

Full exploration of sales capabilities awaits wider application of currency-handling devices (or perhaps credit-handling devices); design of units of greater variety in size and capacity to meet varying retailer needs; creation of new packaging and product ideas specifically for vending. But most of all, full-scale and forceful merchandising is needed to parallel the merchandising in regular store channels. Particular attention should be paid to the functions that automatic vending *could* perform better than existing methods of retailing.

The function that "vending" performs best is the automation of the cash-handling stage of the sales transaction. This ability to complete sales unattended indicates that automatic vending will probably find its place in retailing in two areas: (1) in allowing fuller automation of existing retailing institutions and (2) in allowing sale of merchandise in places and at times where it is unprofitable for retailers to sell in any other way.

In summary, there is no doubt that vending *does* have a role to play in future retailing patterns. It does provide a function that is unique and it is steadily improving this function.

The vending industry is peopled with aggressive and inventive men. Once the merchandising specialists on the retailing side of the picture better understand the nature of vending's potential contribution and are convinced that the size of that contribution can be large, more ambitious and extensive joint experimentation can be expected. Provided the experimenters remain aware of the two distinct vending functions outlined above and proceed step by step along each path according to its own requirements, vending should soon fulfill many of the seemingly "high-flown" promises made for it. It should then occupy a significant place in our consumer-oriented economy.

Guide for Constructing a Merchandising Policy

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In line with Mark Twain's *bon mot* about the weather, retailers constantly talk about merchandising policies but seldom *do* anything about them. They seldom define either "merchandising" *or* "policy," but use the terms jointly to refer both to daily operations and to general policy.

The most widely accepted definition of "merchandising," was recommended in 1948 by the Definitions Committee of the American Marketing Association. "Merchandising," it says, "is the planning involved in marketing the right merchandise or service at the right place, at the right time, in the right quantities, and at the right price." [1] In commenting on this definition, the Committee noted that the term had been used with a great variety of meanings, most of them confusing. The term "merchandise or product planning" was suggested as an appropriate synonym.

Wingate and Schaller followed this definition in their textbook, *Techniques of Retail Merchandising.* Retail merchandising, they defined as "the planning done by retailers to insure an assortment of merchandise balanced to customer demand and offering a profit potential." [2]

Other writers, particularly William R. Davidson and Paul L. Brown, have stated frankly that the term merchandising is a rather nebulous one.[3] In discussing retail merchandising policies, they limited themselves largely to the following areas:

—Types of patronage desired
—Diversification of merchandise
—Range of merchandise assortments
—"Item" merchandising
—Special promotion merchandise
—Seasonal goods

Malcolm P. McNair and his associates at Harvard have pointed out that merchandising has a variety of meanings in the general marketing field. In retailing, they said, the term is "used to describe the whole group of decisions and tasks involved in determining what merchandise is to be offered, pricing it, and acquiring it.[4] Delbert Duncan and Charles Phillips did not

[1] "Report of the Definitions Committee," American Marketing Association, *Journal of Marketing,* October 1948, p. 211.

[2] John W. Wingate and Elmer O. Schaller, *Techniques of Retail Merchandising* (New York: Prentice-Hall, Inc., 1950), p. 1.

[3] William R. Davidson and Paul L. Brown, *Retailing Management,* 2d ed. (New York: The Ronald Press Company, 1960), p. 261.

[4] Malcolm P. McNair, et al., *Cases in Retail Management* (New York: McGraw-Hill Book Company, Inc., 1957) p. 32.

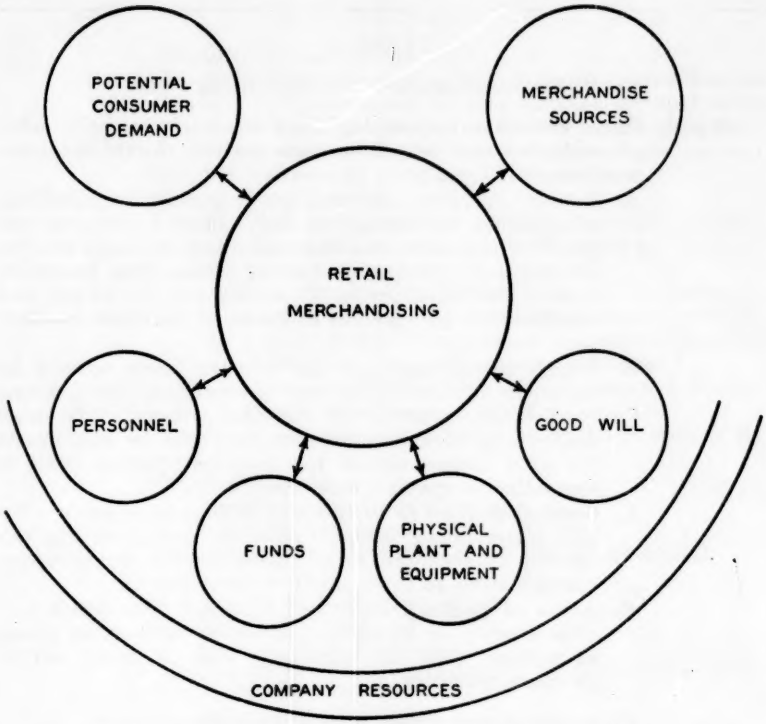

Figure 1. A schematic illustration of retail merchandising.

discuss merchandising policies in any detail in their text, *Retailing—Principles and Methods,*[5] although they did say that one functional responsibility of the merchandising division is the interpretation and execution of the company's merchandising policies.

Retailing is not alone among marketing institutions in its confused usage of the term, "merchandising." A survey made by Pace College in 1957 showed manufacturers, advertising agencies, and advertising media in fundamental disagreement concerning the meaning of the term. Yet many of these responding firms had one or more executives bearing the title of merchandising manager.

The authors of the study suggested a definition that may clarify the matter for advertising specialists but certainly not for retailers. Their definition: "Merchandising is the sum total of all effort to help move goods *at the point of sale.*" [6] (*See* Figure I and Table I.)

[5] Delbert J. Duncan and Charles F. Phillips, *Retailing—Principles and Methods,* 5th ed. (Homewood, Ill.: Richard D. Irwin, Inc., 1959), p. 160.

[6] "Survey Shows Varied Definitions of Merchandising," *Printers' Ink,* December 20, 1957, pp. 47-48.

TABLE I

Guide for Constructing a Merchandising Policy

Area I. ***Basic decisions concerning kind of business.*** **(In what general area or areas of business activity should the company engage?)**

- **A. Should the company engage primarily in retailing, wholesaling, or manufacturing? (For a company engaged primarily in retailing, the major decisions revolve about whether to engage also in wholesaling, manufacturing, and other levels of supply, and the extent and combination of activities in levels of distribution other than retailing?)**
- **B. Which broad merchandise line or lines should be stressed, e.g., clothing and accessories, food, home furnishings, general merchandise, others? (To what degree should these merchandise lines be combined? To what degree should the company permit itself to specialize in specific merchandise lines?)**
- **C. General method or methods of selling to be used. (Retail stores, mail order, house-to-house, vending machines, others? To what extent should the company commit itself to these methods of selling?)**
- **D. Areas of geographical specialization? (In which specific locality or localities, nation or nations, or group of nations does the company wish to carry out its primary activities?)**

Area II. ***From which consumer groups does the company wish to attract its customers?***

- **A. Income levels**
- **B. Social levels**
- **C. Educational levels**
- **D. Taste levels**
- **E. Sex**
- **F. Age**
- **G. Degree of specialization. (To what degree should the company emphasize specific groups among income levels, social levels, etc.? Which groups should be stressed, which ones ignored, which ranges stressed?)**

Area III. ***Gross income from merchandising operations.***

- **A. Total investment in merchandising operations**
- **B. Return on investment**
  1. **Rate of return**
  2. **Time of return**
  3. **Major components of returns**

Area IV. ***Inventory investments.*** **(How much and how should the company invest in inventories in order to attain the above goals?)**

TABLE I (*Cont.*)

A. Breadth of assortments
1. Merchandise groups to be represented (distribution of total investment by merchandise groups; after major merchandise divisions have been made, finer divisions by types of merchandise; stress points)
2. Distribution of merchandise by:
   a) Taste level
   b) Price level (number of price lines, price zones, stress points, even or odd pricing, "leader" pricing, frequency of revisions)
   c) Size distribution (which parts of the potential market should the company attempt to serve?)
   d) Colors (which parts of the potential market should the company attempt to serve?)
   e) Fashions (which parts of the potential market should the company attempt to serve?)

B. Depth of assortment (breakdown by value and/or by units)
1. Basic stocks
2. Minimum–maximum levels
3. Seasonal variations

C. Inventory investment (by value and/or by units)
1. Basic stocks
2. Minimum–maximum levels
3. Seasonal variations
4. Rate of stock turnover

D. Timing of inventory investments in accordance with:
1. Fashion trends
2. Competition

E. Pricing
1. Initial pricing (one price *vs.* variable pricing; fashion *vs.* staple merchandise; seasonal *vs.* nonseasonal merchandise; price averaging)
2. Inventory reductions
   a) Special price discounts (employee discounts, others)
   b) Markdowns (Should markdowns be taken? Under what conditions?)
      (1) Types of merchandise (departments, merchandise groups, staple or fashion merchandise, special purchases for promotions)
      (2) Size of markdowns (by units, by departments, in relation to sales, total amounts)
      (3) Timing
      (4) Meeting competition (when, under what conditions, to what extent)

F. Inventory controls
1. Planned shortages and overages

TABLE I (*Cont.*)

2. Systems and methods
   a) Accuracy
   b) Speed
   c) Expense
   d) Availability of means of control (equipment, personnel)
3. Special controls for slow-selling merchandise

G. Financial policies related to inventory investments (rate of return on inventory investment; over what period and when should returns be expected; should company speculate in inventories, and if so, under what conditions?)

Area V. *Sources of merchandise.* (How can the company get the most value from its investments in merchandise relative to market offerings?)

A. Which kinds of sources does the company prefer with regard to:
   1. Degree of commitment (does the company want long-range relationships with its sources? If so, what kinds of relationships; e.g., financial, personal, etc. Degree of exclusiveness?)
   2. Financial stability of sources
   3. Honesty of business relationships
   4. Location (domestic *vs.* foreign, location within nation)
   5. Terms of payment (cash discounts, dating of payments)
   6. Financial relationships (what financial assistance is the company willing to offer to its sources? What financial aid would the company require of its sources?

B. Buying channels
   1. Direct *vs.* indirect buying (Should the company buy only from manufacturers or also through wholesalers? Under what conditions?)
   2. Make-or-buy (Should the company manufacture any of its own merchandise? Under what conditions?)
   3. Joint buying (Forms of joint buying; under what conditions; domestic and/or foreign?)

C. The evaluation of sources with regard to merchandise offerings
   1. Quality of merchandise
   2. Taste of merchandise
   3. Fashion timing
   4. Price of merchandise available (relationship to markup policies; relationship to price range)

TABLE I (*Cont.*)

5. Branding (appropriateness of source for unbranded merchandise, manufacturers' brands, and/or private brands)

D. Merchandise handling (investments and expenditures in relationship to inventory and selling policies; costs related to speed, reliability, security)
   1. Inward transportation (from outside source to possession by company)
   2. Receiving
   3. Marking
   4. Internal handling to point of sale

Area VI. *Selling facilities necessary to achieve sales and inventory goals.*

A. Physical space
   1. Size of physical space (selling and nonselling)
   2. Location of physical space
      a) Prime locations
      b) Secondary locations
      c) Minimum-cost locations
   3. Kinds of physical plants and accessories required (layout, fixtures, equipment)

B. Selling activities
   1. Types of selling (personal, mail order, telephone, demonstrators)
   2. Kinds and numbers of people required to meet selling goals
   3. Selling services (prepackaging, store packaging, delivery, credit, alterations, adjustments, personal shopping)

C. Sales promotion
   1. Kinds
   2. Frequency
   3. Accomplishments expected (which features are to be stressed; e.g., price, fashions, new ideas, breadth of assortments, etc.)
   4. Media

D. Expense control (What is company willing to allot for the above selling expenses, particularly selling, payroll, rents, and sales promotion? What return is expected for these expenses? How are results to be measured?)

Area VII. *Organization and Personnel.*

A. Organization required to carry out merchandising policy goals.

B. Personnel required to staff the organizational plan.

A survey of literature in other areas of marketing, including the manufacturing level, also led to no adequate definition of merchandising for present purposes.

Proposed Definition

Because the term "merchandising" is used differently at various levels of distribution and among different marketing institutions, uniformity of definition may not be possible in the face of actual diversity. For *retail* merchandising, however, the following is suggested:

> The process of relating company resources to merchandise sources and to potential consumer demand in order to sell goods and services at a profit.

As Figure 1 illustrates, company resources include personnel, funds, physical plant, and equipment, plus good will (largely company and brand image). In large-scale retailing, *primary administrative responsibility* for these company resources commonly lies not with merchandise management but with personnel management, financial management and control, plant operations, and public relations. Yet merchandise management bears primary administrative responsibility for the *relationship* of these resources to merchandise sources and to potential consumer demand, operating in accordance with the firm's merchandising policy, formal or informal.

The above definition of retail merchandising admittedly leaves much unsaid about a very complex process. Table 1, "A Guide for Constructing a Merchandising Policy for a Retail Firm," sets forth many ramifications of such a policy and thus illustrates its composition in some detail. The guide can serve to build a new merchandising policy or check on one already in use.

In retailing, as in other administrative situations, "a policy is a general plan of action that serves as a guide in the operation of a company." [7] When a policy is clearly understood throughout an organization, major executives can delegate duties to subordinates with some confidence that there will be consistency of action. All too often in retailing, policies (particularly merchandising policies) are not clearly defined by top management. Thus each decision is based on the personal policy of the executive involved, or even upon a whim of the moment. To achieve any degree of consistency in the executive decisions of a large firm, a policy *must* be verbalized.

Robert H. Johnson, in *Retail Policies: Their Selection and Application*,[8] has suggested that a sound retail policy should include the following:

—It should facilitate attainment of the firm's objectives
—It must be a planned development rather than the result of opportunistic decisions
—It should be clear and definite
—It should encourage consistency in the operation of the business
—It should lead to the development of a clear-cut character, or

[7] William H. Newman and James P. Logan, *Business Policies and Management*, 4th ed. (Cincinnati: South-Western Publishing Company, 1959), p. 79.

[8] Robert H. Johnson, "Retail Policies: Their Selection and Application," Max D. Richards and William A. Nielander, *Readings in Management* (Cincinnati: Southwestern Publishing Company, 1958).

personality, for the establishment
—It must have a certain degree of flexibility

Construction of Merchandising Policy

In a store already operating, it is possible to build a merchandising policy from the bottom up or from the top down. In building from the bottom up, management analyzes existent operations and practices in order to arrive at a concept which tends to unite and explain current practices. Speed and starting from the known are advantages here. A disadvantage is that current operations often do not add up to a clear, uniform policy, but instead to a confused *mélange.*

In the top-down approach, basic guidelines are laid down by top management. The details of operating procedure are filled in by department heads to accord with the overall principles. Thus the merchandising policy is built in accord with an overall plan. Yet this approach is time consuming and may leave certain current operations (including some very successful ones) at variance with the broad policy laid down by top management. The alternative then may be either to change these operations or accept them as exceptions to the general policy, either temporarily or permanently.

Because individual executives and firms differ, there is no single or best way to construct a merchandising policy. But one thing there must be—TWO-WAY COMMUNICATION between top management and lower-echelon executives. In most firms, top management will focus on basic guidelines; then have subordinate executives suggest how to implement these guidelines in detail; and finally reintegrate the specific recommendations into overall policy.

Table 1 divides a merchandising policy into seven areas. A ranked order of concentration is suggested from top management to lower-echelon management. Thus Area I would be almost entirely within top management's realm of decision making. It is termed, "Basic Decisions Concerning Kind of Business." Area VII, "Organization and Personnel," is at the other end of the scale and would be set *largely* by middle management.

Because the various segments of a retail merchandising policy intertwine, some repetition and overlapping is inherent in the simplified outline form of Table 1. Completeness, moreover, was not an objective in devising this guide. The questions and explanations about certain policy segments (generally in parentheses) are merely suggestions.

Each type of retail business is different, and each individual firm will naturally adapt the guide to its own needs. Yet a company that cannot clearly state the major components included in the table lacks the fulcrum of any successful firm—a *clear and consistent merchandising policy!*

Trading Area Networks and Problems of Store Saturation

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Part II of a Series on Store Trading Areas

Trading Area Hierarchical Networks

Within a given market, each store acts as the focus for a particular trading area. The pattern of the network formed by the trading areas of all stores serving a market is intricate. This intricacy results from: (1) the overlap of trading areas of stores of the same type, and (2) the superposition of different orderings of trading areas.

Two forces in particular influence the pattern of store trading area networks. One force is the central place role of each store. Lösch and others have stated that market areas for the same branches of business resemble even-meshed nets of hexagons; also that stores serving these networks tend to be as close to their population centers as possible.[1]

The second force—in a sense a counter-force—comes from the competing facilities. While stores in the existing trading area seek to find a "gap" large enough for successful investment, such "gaps" cannot always be found. Therefore, a forward-looking merchant will seek to create a new arrangement of networks in the market area. That is, he seeks new locations on modern transportation arteries, more frequently focal, but at times eccentric, to the existing population.

The site requirements, generally, can be found only on highway locations and large tracts of land suitable for shopping centers. The center generates enough merchandising power to create a new trading area of considerable magnitude. As the number of such new store trading areas is multiplied,

[1] August Lösch writes, "The market networks for nonagricultural enterprises are widely spread out in space . . . 'belts' disturb our theoretical economic geometry much less than districts do, for example." Lösch, *The Economics of Location* (New Haven: Yale University Press, 1955), p. 372.

Edgar M. Hoover states: "There is an internal contradiction in Lösch's theory. The hexagonal market (or supply) areas he made assume a uniform density of demand (or supply); but once he has established his concentrations of production, demand and supply are thenceforth *not* uniformly distributed any more and the hexagons ought to be of different sizes and shapes," correspondence with the authors, December 1959.

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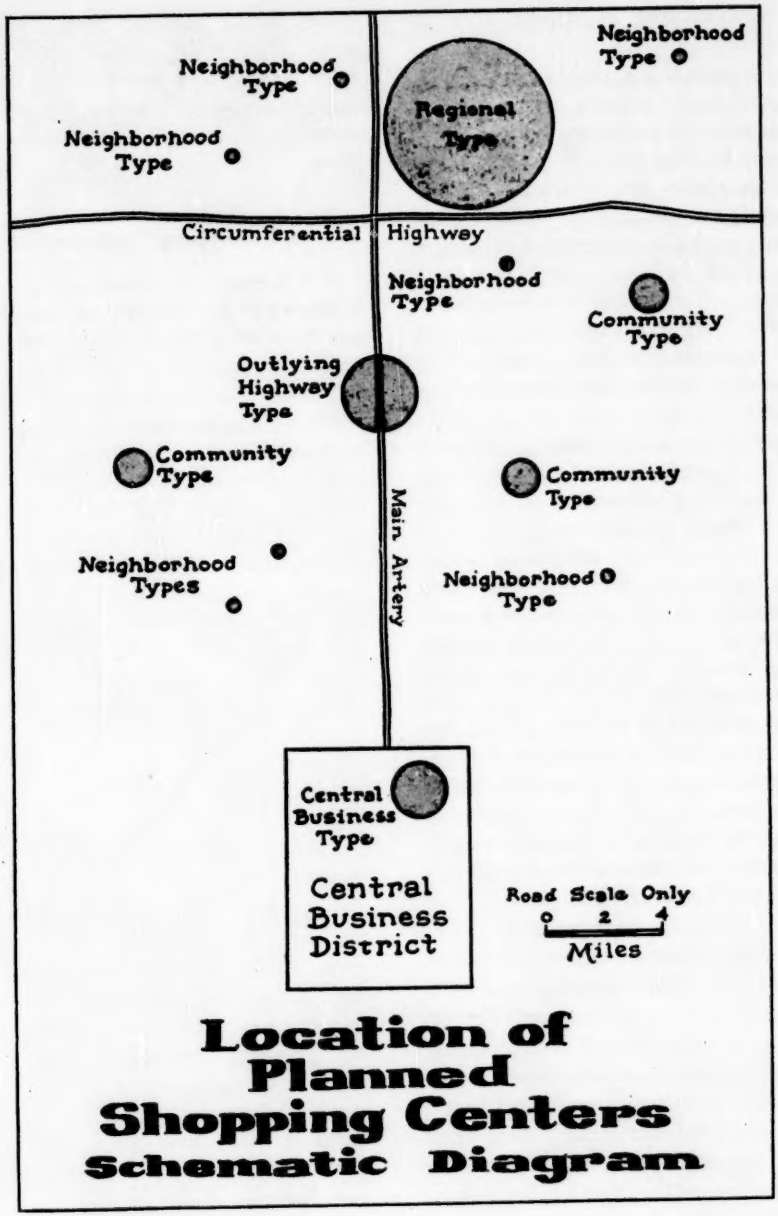

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a new network of trading areas is created.

As stated, the problem of finding "gaps" in the existing arrangement is complex. One company may consider a gap to exist when 20 percent of an entire market area is not served adequately by existing store facilities. Another company, however, may have a policy of building only high-volume stores. Thus it will not be satisfied that a "gap" exists in this market until the available "surplus" (potential) is sufficient to meet its accepted volume needs.

As competitive conditions change, a company with a number of established stores in a given market is certain to lose ground in some of its locations. Hence, it must grow elsewhere, or face decline, possibly even disaster. For a business enterprise survives only when it can sustain dynamic growth from its own resources by generating profits. Dynamic growth means keeping pace with changes in market opportunity; it also means changing physical facilities to keep pace with competition. A business, therefore, must rejuvenate itself by replacing its outmoded facilities and must increase in size through building additional facilities.

To summarize, the growth of a business enterprise can take place in two ways: (1) by expansion into completely new territories, and (2) by filling existing "gaps" or rearranging trading area networks. There is a distinction, however, between creating on the one hand new store trading areas that mesh in with existing trading areas, and on the other hand new store trading areas that overlap or lie completely within existing store trading areas. Under the former condition, store trading area networks are filled in "harmoniously"; under the latter, complete "surgical" rearrangements occur.

Planned Shopping Centers

The hierarchy of store trading area networks in the Anglo-American city has been made more complex by the spectacular post World War II growth of suburbia and the advent of the planned shopping center. Utilizing the authors' classification, Figure 4 presents this hierarchy schematically. This diagram indicates that while community and neighborhood planned shopping centers are found between regional shopping centers and the C.B.D., usually only neighborhood planned shopping centers are found on the outward-facing side of the regional shopping center. This is due to sparser population density on the outward side of the regional shopping center, and correspondingly, also fewer "interceptor" locations.

Two remarkable facts about planned shopping centers are: (1) the ease and speed of their emergence within the market area, and (2) their impact upon new and existing shopping facilities. Either real estate developers or retailer-owned real estate enterprises are primarily responsible for the planned shopping center. These are men and firms with force and determination who have promoted and effected concentrations of modern shopping facilities almost overnight.

These new shopping concentrations

may have either good or bad effects upon the retail structure of a city, but certainly the effects are profound. The impact of new planned shopping centers on older store facilities, particularly the C.B.D., varies considerably with three factors:

1. Growth of population and the corresponding need for new store facilities
2. Relative amount and kind of new store facilities provided by planned shopping centers
3. Response and counter-measures taken by merchants operating existing older store facilities to meet the new competition

The relative importance of the C.B.D.'s share of the total retail sales in metropolitan areas is adversely affected by the competition of the planned shopping centers.

The planned shopping center can upset equilibrium as it competes with older facilities. But it can also upset equilibrium by forcing retailers to concentrate new facilities rather than to spread them uniformly. In smaller cities, in particular, leading retailers may not be enthusiastic about a planned shopping center, but also may not dare to stay out of the development.

Furthermore, a developer may insist on having two of the same type stores in a shopping center. Thus, even though an operator may prefer another location or may desire to wait for further population growth, he may enter the shopping center to keep a competitor out. *Result:* overstoring or poor distribution of retail facilities within the market.

In general, the larger the retail district, the greater the percent of retail sales to total sales obtained by shopping goods establishments in that district; the smaller the retail district, the greater the percent of sales obtained by convenience goods stores. The pattern of store trading area networks is one in which the C.B.D. has been completely superimposed upon the entire metropolitan area. Secondary business districts attempt to compete with the C.B.D., and their smaller trading areas lie within that of the C.B.D. The string developments that adjoin the C.B.D., with their heavy emphasis on automotive and furniture stores, duplicate the C.B.D. in the total coverage of the metropolitan area, just as "strips" adjoining the secondary business districts duplicate the latter.

Within this framework are the convenience neighborhood or isolated stores whose small trading areas form "islands" within the trading areas of greater magnitude.

Few planned shopping centers have been built in association with other business activities—large numbers of offices, wholesaling and manufacturing plants. Consequently, even the largest of the regional planned shopping centers cannot exert a power of penetration commensurate with that exerted by the competing C.B.D. For the C.B.D. has superimposed its trading area on the trading areas of other planned shopping centers of lesser magnitude.

Store Saturation and Market Equilibrium

Store saturation of a market is a condition under which existing store facilities are utilized efficiently and

adequately meet customer needs. Saturation exists for a given type of store, when a market has just enough store facilities of a given type to serve the population of the market satisfactorily and yield a fair return to the owners on their investments without raising prices to the customer to achieve this return. When a market has too few stores to provide satisfactorily the needs of the customer, it is *understored.* When a market area has too many stores to yield a fair return on investment, it is *overstored.*

Saturation as defined here, implies a balance between the amount of existing retail store facilities and their use (which in turn is a reflection of need).

Static and Dynamic Equilibrium

Such a condition is ephemeral, for balance between facilities and their use cannot be rigidly maintained in an inherently dynamic situation. Additional facilities or changes in merchandising techniques or in the geographical environment will upset the balance.

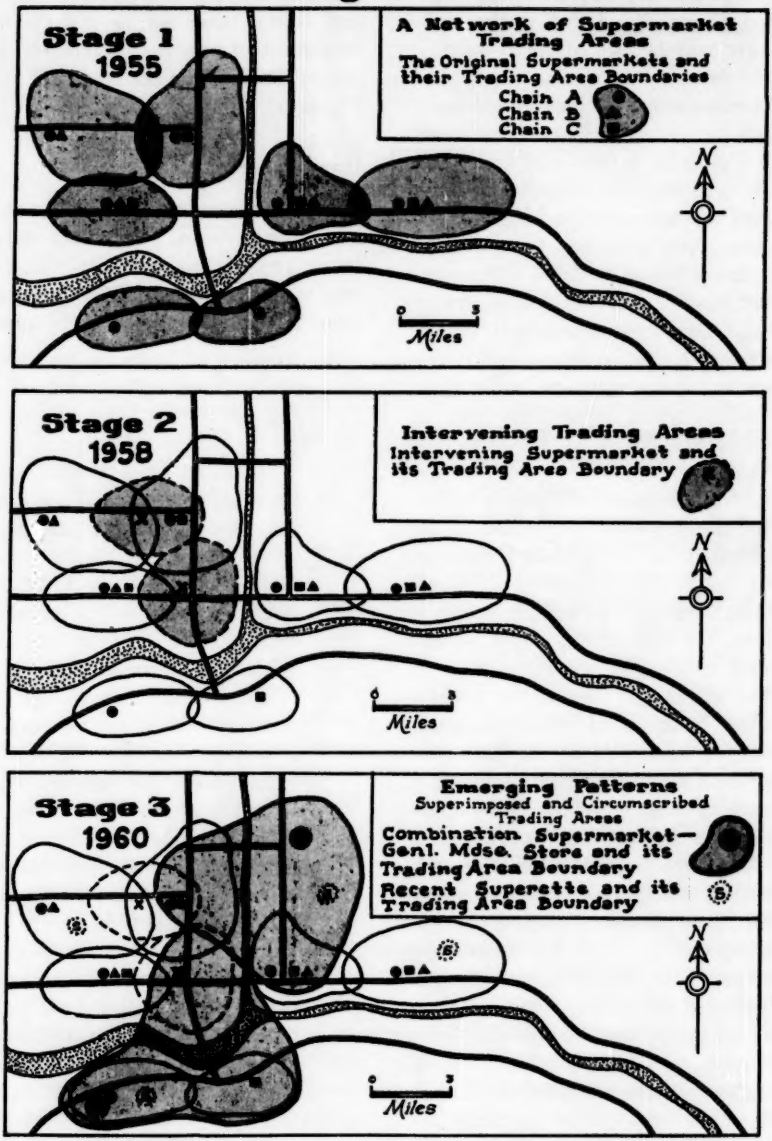
The tendency is for stores of the same type to equal each other in size insofar as market opportunities will permit. Such equality in size becomes a competitive offensive and defensive necessity to satisfy customers and to achieve optimum operating and/or merchandising efficiencies in a given marketing environment. If all companies expand store facilities beyond the needs of the market, then a situation is created where all have lowered their productivity in terms of sales per square foot of selling area.

Disturbance in equilibrium may occur if anticipated population increases fail to materialize or if an area is depopulated. It may take place if there is a basic change in the transportation pattern, opening the existing trading area to outside competition. It may occur if customer shopping habits, such as mode and frequency of travel, alter radically.

If the balance between need and availability of store facilities is restored without appreciably altering the existing trading area pattern, then the period of imbalance can be described as one of *short-run disequilibrium.* Such a restoration of balance occurs in situations of understoring through the building of additional store facilities to keep pace with population growth. This can take place in fast-growing suburban areas where subdivisions of a few thousand homes may spring up "overnight." It can also take place in mature areas, such as the inner portions of central cities that become engulfed by the immigration of younger persons with large families: for example, in cities in the northern United States which receive annually thousands of Negroes and whites from the South. Such restoration can occur under conditions of overstoring through growth of population, or through the elimination of some unprofitable facilities.

At times, however, the balance between the availability of, and need for, facilities can only be restored through innovations in facilities, through vastly improved uses of existing facilities, or through changes in merchandising techniques. These "revolutionary" changes usually seek lower operating costs, and/or greater customer satis-

Complementing and Rearranging Store Trading Area Networks



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factions—either in the form of lower prices, a more pleasing shopping environment, or increased services. The period of imbalance that marks such changes will be one of *long-run disequilibrium.*

As innovations in facilities and merchandising techniques enter the scene (*see* Figure 5), networks of new trading area patterns are introduced. This process was set in motion both: (1) as grocery stores gave way to supermarkets, movie houses to drive-in theaters, corner gasoline stations to super-service stations, dry goods stores to self-service general merchandise stores, and drugstores to super-drugstores; and (2) as planned shopping centers emerged in competition with older business districts.

When saturation or balance is restored under short-run conditions, the equilibrium that is established might be described as *static equilibrium.* When balance is restored under long-run conditions, the equilibrium might be described as *dynamic equilibrium.*

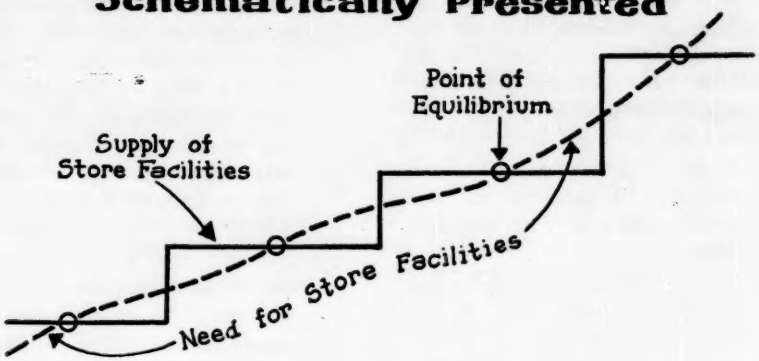
The authors, in viewing the pattern of the location of retail facilities through a system of equilibrium, consider the following elements among the disturbing factors that constantly operate within the environment to upset equilibrium: population change, accessibility change, merchandise assortment change, purchasing power change, demand change, retail facility change, shopping and buying habits change, concepts of profitability margin or return on investment change. As these elements are operative, they bring about conditions representing either a lack or an excess of needed store facilities. The periods of imbalance, or disequilibrium, are lengthy; saturation, the point of equilibrium, is brief in time and in space. Yet it is equilibrium that is the basis for an orderly arrangement of patterns of retailing facilities, for it is the constant goal (*see* Figure 6).

How to Measure Saturation

How to measure saturation is a matter of professional interest to economists, geographers, and city planners, and of practical concern to businessmen. Several approaches can be taken:

1. Number of persons per retail establishment. The national or regional norm of the number of persons per specific type of store is calculated from available census or other statistical data. Similarly, the number of people for the same type of store is calculable for the given market; the figure thus obtained is compared with the national or regional norm to measure saturation.
2. Available retail expenditures per retail establishment. The number of persons times per capita retail expenditures for specific types of goods is calculated for the given market. The figure obtained is compared with national or regional averages. There are many difficulties in using this measurement: No allowance is made for differences in store size. Average purchasing power disguises too many relevant factors. Different income groups may buy different things or in different amounts. People buy different goods at different times in their

Equilibrium
Schematically Presented



lives; thus, the same number of toy stores serving a youthful population will provide an excess of facilities to this population as it ages.

3. Number of persons per store front footage. The data for a given market are compared with averages determined in other studies, made mostly by city planners. This does not take into account multiple story facilities. Store frontage without store depths is not a true index of store area, and city blocks do differ in depth. Frequently, in older areas, stores expand their frontage but do not expand their depth correspondingly; whereas, in newer areas buildings can be extended in depth more readily.
4. Ratio of store vacancies to total stores. This can be measured on the basis of number of vacant stores or vacant floor area. Many vacancies imply overstoring. However, lack of vacancies may not mean the converse, because many stores do not use their space fully or effectively.
5. Sales per square foot of selling area. This, in the opinion of the authors, does measure productivity and degree of efficiency of use of space. Therefore, it is suggested as the basic measure of saturation. (The use of sales per square foot of total store area gives lesser comparability than sales per square foot of selling area.)

There are capacity norms of selling area productivity for various types of retail business. Related to these sales capacity norms are rentals and other operating costs.

As with all standards, there are difficulties in using the sales per square foot of selling area measure. Some of these difficulties are:

1. Differences in company policies, among enterprises within the

same type of retailing, result in variations in the percent of total store area devoted to selling area. Some companies, for various operating reasons, devote more store space than others to storage, preparation of goods, office use, etc.

2. Changes in price index require statistical adjustments of per capita sales figures for comparability.
3. Differences and changes in the merchandise mix (*i.e.* variety and quality of type of goods) handled also require weighting of measurement standards. If one store devotes 15 percent of its space to slow-moving merchandise, and a second store only 5 percent, then sales per square foot of selling area are not strictly comparable unless adjustment is made for the difference. Quality differences present a similar problem. In either case available information may not be adequate to avoid some margin of error.
4. Because of differences in number of hours per week that stores are open for business, some stores use their selling facilities more intensively timewise than other stores. While sales productivity per square foot is stepped up by the more intensive use of store facilities, normal sales become more spread out or diffused; thus the additional operating expenses incurred may exceed the gains from higher sales per square foot. To make meaningful measurement adjustments for these differences is a complicated task.
5. Finally there are differences in merchandising methods. Self-service merchandising generally means a more rapid turnover of goods and higher sales per square foot of selling area than service. Mail-order business can be done from a desk with little or no merchandise on the premises. Similarly, sales to customers over the telephone require little selling area. In using sales per square foot of selling area as a measurement of store saturation, judicious allowances must be made for these complicating factors.

In spite of these difficulties, sales per square foot of selling area remains the most significant broad guide to store productivity. The smaller the sales area in relation to sales, the less the land, building and fixture investment, the less the inventory on display and hence greater turnover. Correspondingly, employees need to take fewer steps, and customers require fewer steps to complete their purchases. Thus, higher sales per square foot of sales area means greater return on investment.

Attempts have been made to measure productivity on the basis of profits per square foot of selling area, or on the basis of potential sales per square foot of selling area. The former, however, requires too many adjustments to make the measure meaningful for comparative analysis; the latter is unrealistic for practical application.

Understoring, Overstoring, and Saturation

In a given area a situation of *understoring* exists under the following conditions:

1. Where sales per square foot of selling are unusually high
2. Where customers must travel farther than they want to travel in order to shop
3. Where shopping conditions are too crowded and too slow

When the reverse is true, *overstoring* exists.

Understoring, saturation, and *overstoring* for a given type of store occur on two levels: for the group as a whole and for specific companies within the group. Thus, in a given self-contained market area of 500,000 persons, there might be 400,000 square feet of department store selling area; annual sales might average $125 per square foot. Since $100 per square foot of selling area is the generally accepted capacity norm for department stores, the market area could be regarded as understored.

If, however, within this market area, one company already accounts for one quarter of the total department store sales, then the company might consider the market saturated with respect to itself. Few department store companies seek more than 30 percent of the total market in metropolitan areas of this size.

For each company, there is a diminishing return on investment if it seeks to obtain too great a share of the market. For when this occurs, competition reacts through expansion of facilities or stronger merchandising. The company in question, then, to hold its share of the market, must increase services or lower prices, thus reducing its return on investment.

Saturation, as expressed by share of market goals for individual companies, varies with the strength and philosophy of the company and with the general market area being served. In larger metropolitan areas, some chain department store companies set 20 percent of the market as saturation, while in smaller metropolitan areas saturation is set at 30 percent. Similarly, chain supermarket companies set their saturation goals for nonmetropolitan areas at 25 to 30 percent of the market, and at 10 to 15 percent of the market in large urbanized areas. This difference springs from two considerations: (1) the amount of sales needed to support a modern store facility in nonmetropolitan areas can be achieved only by getting large per capita sales; (2) in metropolitan areas there are usually a number of strong companies competing with each other and the sales are divided more evenly among them.

Within a given market, saturation for individual companies can vary with company policy. In some cases, saturation is established by set minimum store sales goals for new stores. If the gaps between or within existing trading areas do not promise such minimum sales, then the market is overstored for this company.

Because of a desire to add store facilities, a company may be willing to lower its yardsticks for saturation. This desire may be based on a number of considerations:

a) To gain better purchasing terms

b) To provide or make better use of warehousing facilities
c) To provide more retail outlets for its own manufactured goods
d) To reduce relative costs of advertising or store supervision
e) To anticipate future store space requirements for handling additional lines of goods

Scrambling of Merchandise

If all retail stores sold the same goods in the same manner, then the conditions for market equilibrium would be met by small, compact trading areas surrounding each store. The stores would be uniformly spread, insofar as the distribution of population and lines of transportation would permit. Instead of there being a more or less uniform spread of stores, all of these general retail facilities could be clustered in a compact belt. But this has not happened. Rather than serving as general stores for all goods, retail stores have specialized along particular lines, benefiting from specialized facilities, merchandising skills, and operational techniques.

The customer's choice of specialized offerings of goods versus generalized offerings is the basis for store trading area differentiation. The fewer the number of stores that carry the same item, the more extensive are their trading areas. The less frequent the number of visits needed to replace an item, the more extensive will be the trading area from which these customers come. Conversely, the more the number of stores that carry the same item, and the more frequent the number of customer visits needed to replace these items, the less extensive the trading area.

In the United States, specialized stores have recently tended to scramble their merchandise mix by taking on lines traditionally sold by other types of retail outlets. Thus, self-service dry goods stores have taken on appliances; super drugstores have extended lines to include variety, hardware, and general merchandise; supermarkets have added health and beauty aids, housewares, garden supplies, and are now expanding into soft goods. Sometimes the scrambling leads to expansion of the market, sometimes not.

Two forces intensify scrambling: (1) economy of scale derived from having larger buildings, larger parking lots, and a wider variety of goods that can be sold under one roof; (2) the planned shopping center that stimulates excluded stores to try to duplicate the pattern of one-stop shopping and thus offset the "monopoly" positions granted to national and regional chains by the center developers. Independent merchants and small chains are now building combination food and general merchandise stores or discount stores on the fringes of the shopping center.

Scrambling of merchandise occurs also in stores located within planned shopping centers through duplication of lines carried. Half a dozen stores within a shopping center may devote space to the same types of goods, frequently of the same brands or varying little, if any, in quality and price. By associating with their successful neighbors, the independent merchants seek to secure a larger share of the customer's expendable income.

There are, of course, limitations to scrambling, such as cost of operation, space, merchandise knowledge, restriction or other means of regulation (liquor permits, zoning ordinances, lease restrictions to the sale of goods).

Scrambling of merchandise also leads to wider selection, more attractive pricing, and better presentation. But in the long run, if scrambling is to lead stores outside shopping centers to duplicate shopping centers, or shopping centers to try to duplicate one another by appealing to the same types of customers through the same lines of medium- to high-priced merchandise, then store locations, as a whole, will take on a more uniform distribution pattern.

Competition and Market Equilibrium

The behavior of a competitor who miscalculates and overbuilds can create disequilibrium. A powerful competitor who overbuilds can ruin others. A weak competitor who miscalculates can ruin himself.

Mergers are frequently considered a vehicle for resolving or averting problems of overstoring in a market area. This solution works well if the store facilities added by the acquiring firm can be used efficiently or, if not, partly disposed; otherwise, rather than restoring equilibrium, a merger can heighten a condition of disequilibrium.

A change in ownership may disrupt equilibrium, not because the new owner is weak, but because some of the added facilities cannot be used effectively. Two factors make it increasingly difficult for one chain to absorb a second without acquiring duplicatory or otherwise inefficient store facilities. These are: (1) competitive stores are being located within shopping centers, and close to each other on highways; (2) bigger stores are being built with more extensive trading areas and more overlap with competition.

New building programs and/or reshuffling of store ownership result in a change in the balance between available store facilities and their use. Building programs can be either boons or detriments, and there is never a perfect merger.

Conclusion

Changes in store facilities, merchandising, and services are the means by which dynamic equilibrium is maintained by a retailing society. Addition to existing facilities is the method by which static equilibrium is maintained.

In general, the more regulated the society, the greater the possibilities of freezing store facilities and trading areas. The more competitive the society, the more change is likely, shaking up the equilibrium and hastening the process of new store adjustments.

Government and political influences can be put to positive use. They can serve to induce or anticipate change. In the United States, where zoning and licensing may prevent builders from bringing changes onto the scene, these can also serve to encourage the development of new and needed shopping facilities. In new towns in England a planning process is also used to anticipate changing needs.

(Continued on page 55)

Attitude of College Students Toward Retailing as a Career

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With 12 to 15 percent of the employed people in this country engaged in retailing,[1] opportunities for young executives in the field are high. Yet only 30 percent of retail employers who reported recently [2] on their college recruitment programs found students inclined toward retailing as a career. To explore this discrepancy, the author surveyed a sample of 393 students. A companion survey explored the salaries, rates of advancement, and working conditions in retail firms which have an announced policy of recruiting college graduates. Student opinions of the industry were compared with conditions reported by the firms to determine whether misinformation exists . . . and if so, where, and why.

The Student Sample

Only those students were questioned who planned a career in some area of business. They were distributed almost evenly among the freshman, sophomore, junior, and senior classes of the College of Business and Public Administration, University of Maryland. While a majority were business administration majors, some represented other colleges of the campus. Among the respondents, men outnumbered women by a ten-to-one majority. Sixty-nine percent of the students were between the ages of 18 and 22; the remainder were over 22. Forty-six percent came from towns of under 100,000 population and from rural areas. Fifty-four percent came from cities of over 100,000, many from the metropolitan areas of Washington, D.C., and Baltimore. About half of the students held some type of part-time job.

In reporting the occupation of the father 19 percent cited skilled or ordinary labor; 23 percent said supervisory or staff management; 12 percent were employed in federal or state governments; 11 percent in sales and advertising; and 8 percent in retailing. The remaining areas of employment included professional and miscellaneous categories. Relative to family income, 5 percent reported a family income of $5,000 or less; 44 percent from $5,000 to $10,000; 25 percent from $10,000 to $15,000; 11 percent from $15,000 to 20,000; 15 percent reported family incomes over 20,000. Thirty-five per-

[1] Data based on statistics from the Department of Commerce, Office of Business Economics, 1959.
[2] The study will be described in detail later. Though graduate students in retailing naturally expressed interest in their chosen field, others revealed the opposite.

cent said that the mother worked outside the home. As for education, 36 percent of the fathers had attended college and 26 percent of the mothers. Twenty-one percent of the fathers had graduated from college, and 13 percent of the mothers. This sample represents a reasonable cross-section of students interested in business careers, and enrolled in state universities at each of the four class levels, freshman through senior.

Students participated on a voluntary basis. The completed questionnaires were submitted anonymously. To further encourage objectivity, the survey was conducted as a general study of attitudes on business careers. Any questions on retailing were integrated as part of the broader survey.

SURVEY OF STUDENTS

Career Plans

Forty-four percent of the students said they had definitely chosen their careers. Thirty-seven percent reported tentative plans. The remaining 19 percent reported no plans at all. Thirty-nine percent of the freshmen and sophomores reported definite plans, as did 48 percent of the juniors and seniors. Though it must be remembered that two thirds of the respondents were 22 years old or under, the indecision shows a strong need for vocational counseling. Otherwise graduates will experiment later at the expense of their first employers.

The majority of the "decided" students preferred staff positions in accounting, personnel, and advertising. Yet nonretail positions, as in insurance and real estate, ranked high, as did supervisory management in manufacturing. Of the 393 students surveyed, only 5 percent planned to enter retailing. Even among these, a considerable number said that retailing was the family business and this fact affected their decision to enter.

Those interested in retailing thought mostly of retail store management. Perhaps many who sought accounting and personnel management careers would consider employment in a retail firm. Since 89 percent of the students knew of such staff positions in retailing, it was even more surprising that such a small percentage planned to enter this field as a career.

Contrary to a general impression, the college students surveyed here did not show an inflated idea of salary possibilities after receiving their degree. Seven percent envisioned a starting salary below $350 per month; 51 percent expected between $350 and $450; 36 percent between $450 and $550, and 6 percent over $550. Asked about hoped-for earnings after ten years (assuming the price level remains as present), 47 percent estimated under $10,000. An additional 26 percent estimated between $11,000 and $14,000. Twenty-two percent thought they would earn more than $15,000 per year, and 5 percent stated that they had no thoughts on future earnings.

The students were confronted with a list of factors normally considered in choosing a job and asked to pick the one which would weigh most with them. These factors included: location, starting salary, job security, opportunity for advancement, personal

liking for the type of work, job prestige, working conditions, such as hours per day. For the first consideration, 40 percent chose opportunity for advancement; an additional 40 percent chose personal liking for the type of work. The remaining 20 percent divided among the other factors. Only 6 percent listed starting salary as of first importance. The answers on the whole showed that some thought had been given to the matter.

Attitudes Toward Retailing

When asked if they had ever considered retailing as a possible career, 51 percent said yes. Since only 5 percent intended to enter the field, the majority must have come to negative conclusions. Specific attitudes were revealed in the answers to the questions in Table I.

Ranking of Retail Prestige

Next, students studied a list of six positions and ranked them in order of prestige they felt each enjoyed in the community. The six positions were ranked by the majority in the following order:

Bank executive—first place
Manufacturing executive—second place
Insurance executive—third place
Department store executive—fourth place
Supermarket owner—fifth place
Government investigator—sixth place

It is significant that 75 percent of the students ranked the department store executive in fourth place or lower. Also 69 percent ranked the supermarket owner in either fifth or sixth position. On the basis of the composite rating, the department store executive ranked fourth, behind the bank executive, the manufacturing executive, and the insurance executive. The supermarket owner ranked fifth, beating out the government investigator by a small margin.

The attitude revealed in this ranking of position, plus the attitudes toward the importance of college education in retailing, suggests that retailing rates less well than it might in our status-conscious age. Put differently, the retail industry may well carry a negative image in the minds of most college students. Yet current conditions in the industry, as borne out by facts supplied by retail firms, suggest that this unfavorable image is not grounded in fact.

SURVEY OF RETAIL FIRMS

A representative group of retail firms was chosen from the College Placement Annual, 1960, as having an announced policy of hiring college graduates for trainees. Firms were chosen to represent various fields of retailing and various sections of the country. Seventeen firms compiled and furnished the statistical data requested. These respondents included department stores, national dry goods chains, a variety chain, large food chains, large mail-order chains, and others.

The resulting facts on starting salaries and rates of increase are reported in Table II. Respondents stated the average starting salaries now paid to men and to women. They then re-

TABLE I

Student Attitudes Toward Retailing

Question	*Number of "Yes" Answers (Percent)*
Would you expect the starting salary of a college student who enters retailing to be—	
Higher than that found in other fields of business	8
Lower than that found in other fields of business	40
About the same as that found in other fields of business	52
Would you expect the rate of advancement for a college student in the field of retailing to be—	
Faster than in other fields of business	35
Slower than in other fields of business	19
About the same as in other fields of business	46
Would you expect the college graduate who enters retailing to be earning at the end of ten years—	
More than he would earn in most other fields of business	29
Less than he would earn in most other fields of business	22
About the same as he would earn in other fields of business	49
In your opinion, would you expect a graduate entering retailing to have to work—	
Harder than in most other fields of business	49
Not as hard as in most other fields of business	6
About the same as in other fields of business	45
For a person seeking a career in retailing, would you consider a college education to be—	
More important than if he were entering most areas of business	17
Less important than if he were entering most other areas of business	31
Of equal importance compared to other areas of business	52

TABLE II

Salary Data for Selected Areas of Employment as Compared to Data Reported by Responding Retail Firms (Average monthly salary)

Employment Category	*Starting Salary*	*Salary After Five Years*	*Salary After Ten Years*
Engineering	$510	$682	$849
Accounting	446	629	810
Sales	440	667	820
General Business	428	620	799
Retail Trainees:			
Men	387	650	1,019
Women	312	549	825

Sources: Frank S. Endicott, "Trends in Employment of College and University Graduates in Business and Industry," The Diary of Alpha Kappa Psi, Spring 1961, p. 7; and the author's survey of retail firms. (The average salaries for women in retailing are based upon reports from nine firms.)

ported the average salary received by persons in each category who have been with the firm for five years but less than ten. Finally, they reported the average salaries earned by those who have been with the firm for ten years or more.

The salaries reported are mean averages, and thus there is considerable range between the highs and lows in each category. As a basis of comparison, the data collected by Dr. Frank S. Endicott of Northwestern University were used. Through a number of continuing studies, Dr. Endicott has assembled data on areas such as engineering, accounting, sales, and general business. In collecting the data reported in Table II, he made a survey of 210 business and industrial firms. The salaries reported are mean averages.

Although the number of participants in the survey of retail firms represents a relatively small sample, they are among the larger retail employers. The data are thought to be representative of starting salaries and rates of salary advancement in the larger firms.

In addition to the information on salaries, the respondents reported the length of the average work week for management employees. They also reported the attitudes encountered in recruiting trainees among college graduates. In response to the question about hours, they reported forty-four hours per week for junior executives and forty-six hours per week for advanced executives. The data on hours worked are perhaps as accurate as that obtainable for any executive group. In response to the question on attitude, 30 percent reported that they encountered favorable attitudes. Seventy percent reported that attitudes were generally unfavorable or indeterminate.

In comparing the average salaries reported in the study by Dr. Endicott with those of our respondents, we note several significant factors. The retail firms report starting salaries as below those in engineering, accounting, sales, and general business. After five years of employment, however, the average salary reported for men in retailing compares favorably with the other categories. By the tenth year of employment, the average salary earned by men in retailing is well ahead of the highest of the categories reported by Dr. Endicott.[3] Significantly, our survey of students showed that 40 percent regard opportunity for advancement as the first consideration in choosing a job. Apparently, then, students are not fully aware of the potential in retailing.

Certain of the respondents commented voluntarily on problems of recruiting college graduates. Some of the comments follow:

> "Note regional differences: New York, New Jersey, Pennsylvania attitude generally favorable. New England Ivy League type schools attitude disinterested. Mid-west, better students' attitude generally unfavorable."
>
> "Believe students' part-time, Christmas, and summer work experiences in relatively menial positions, with little or no attention paid to them as future candidates for retail executive careers, leave a bad taste in their mouths and an

[3] It should be noted, however, that some retail employment may have been included in the categories reported by Dr. Endicott.

(*Continued on page 56*)

The Honor Roll in Retailing at New York University

A Roster of America's Retailing Leaders

CHARLES M. EDWARDS, JR., and HELEN FAITH KEANE
Dean, New York University School of Retailing and Associate Professor of Retailing

Robert C. Kirkwood

For more than thirty years the New York University School of Retailing has been honoring leaders in retailing from all parts of the country by conferring upon them honorary membership in the Alpha Chapter of the Eta Mu Pi Fraternity, the only fraternity of its kind in the field of retailing. Founded in 1922 in the New York University School of Retailing, Eta Mu Pi has grown into a national organization.

In keeping with the high standards to which it has adhered since its establishment, the Alpha Chapter grants honorary membership only to those who have made noteworthy contributions to the ethics, the science, and the practice of retailing.

When it awards honorary member-

ships to men and women of outstanding accomplishment in retailing, the Alpha Chapter presents to the recipients written citations that summarize some of the major facts about their achievements. In the belief that the careers of these distinguished merchants will prove interesting and inspiring to its readers, the JOURNAL OF RETAILING *publishes one or more of these citations in each issue. The purpose is twofold: (1) to call well-deserved, wider attention to the attainments of some of the foremost business leaders of our day, and (2) to provide a cumulative source of information about retailers for reference purposes.*

Chosen for recognition in this issue is:

Robert C. Kirkwood

As president of the F. W. Woolworth Company, Robert C. Kirkwood is the Master Merchant of the Mass Market. On the counters of his Woolworth stores, which are truly the showcases of the American way of life, the country's economic and social mores are reflected.

A native of Provo, Utah, Mr. Kirkwood has been gainfully employed in some manner since the age of six. He launched his lifelong career with his first full-time job in a local Woolworth store, advancing from learner to leader. Thereafter the pattern of his progress was paradoxically straight up, yet zigzag into all facets of retailing. Today his business horizon comprises not only the United States but the whole American continent, as well as Europe and even Africa. His personal horizon, too, is as broad as all outdoors—hunting, fishing, gardening, golf.

Since taking presidential office, Mr. Kirkwood has broken many of the traditional barriers of a variety chain: separate cafeterias bear their own name; under the guidance of college-trained horticulturalists, free-standing garden centers grow green thumbs for millions of new suburbanites; racks of ready-to-wear for men, women, and children change the classical appearance of counter-top interiors.

Mr. Kirkwood defines the future image of the almost 3,500 Woolworth stores as "headquarters for the entire home and the whole family." Not content with his ambitious goal, within the past fortnight he announced still another vast retailing venture, a chain of discount department stores, a separate division of the Woolworth Company.

While his attention is claimed by Wall Street, his success comes from his closeness to Main Street. The needs of millions are his first concern, from fish food to fashion, from candy to carpeting. As Woolworth's products run the gamut of America's grass roots taste, Robert Kirkwood becomes the social historian of our time, not with words but with things.

Robert C. Kirkwood, at the tender age of six you began to demonstrate the initiative, the resourcefulness, and the integrity that have characterized you throughout life. For these and other sterling qualities which have brought you many well-deserved personal and professional triumphs, we commend you by conferring upon you an Honorary Membership in the Alpha Chapter of the Eta Mu Pi Fraternity.

Book Notes

Market and Sales Potentials, by Francis E. Hummel. New York: The Ronald Press Company, 1961, vi plus 310 pages. $7.50.

This volume presents various methods of calculating territorial potentials for both consumer and industrial goods. It also describes ways in which marketing managers can use these data in planning and controlling sales activities. The subject matter is divided into five parts: (1) Potentials, (2) Basic Background Research, (3) Establishing Industrial Goods Market Potentials, (4) Establishing Consumer Goods Market Potentials, and (5) Marketing Planning Using Potentials. Charts and tables are used throughout the text to illustrate the various concepts.

Francis E. Hummel is Manager of Marketing for the Bassick Company, a Division of Stewart-Warner Corporation.

THEODORE D. ELLSWORTH

Planning and Creating Better Direct Mail, by John D. Yeck and John T. Maguire. New York: McGraw-Hill Book Company, Inc., 1961, xii plus 383 pages. $6.95.

To create a reaction in his readers, the expert copywriter sets up a three-part pattern of empathy, motion, and impact.

Tips on how to do this, as well as how to build and update lists, are explored in the new and practical book, *Planning and Creating Better Direct Mail. "Empathy,"* the authors write, is "Sympathy, the rapport created by copy. It is the spirit of copy that bridges the chasm between people. Empathy is Heart . . . Empathy is Balance . . . Empathy is Insight . . . Empathy is Harmony."

"Motion in copy," they continue, "is moving the reader from the state of mind you find him in to the state of mind you want him in." Copy, therefore, must be persuasive and must flow rapidly. There must be an orderly movement of ideas and the copy must have rhythm, both visually and structurally. Active verbs create movement in copy and produce good mental imagery.

"Impact," Yeck and Maguire explain, "is the bounce of the ball, the force with which the message hits the reader, the degree to which the message penetrates." The first rule is to hit the reader's senses hard, to select words that force the reader to see, feel, smell, and taste the product. Another technique for impact is a change of pace in the copy (for example, "It's rate . . . it's distingué . . . oh nuts, it's darn good").

A particularly helpful chapter discusses marketing research. Another chapter shows how to keep mailing lists up to date with the aid of the United States Post Office as well as your own clerical staff.

John D. Yeck is a partner in Yeck and Yeck Advertising Agency, Dayton, Ohio. John T. Maguire is associate professor of Business English at the University of Illinois, where he teaches a course in direct-mail advertising.

SALLIE SEWELL

Problems in Retail Merchandising, 5th ed., by John W. Wingate, Elmer O. Schaller, and Irving Goldenthal. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1961, 335 pages. $4.50.

The new, fifth edition of *Problems in Retail Merchandising* is a pertinent and comprehensive guide for solving nearly every type of mathematical problem confronting today's merchandisers. The authors treat the planning, direction, and control of merchandise operations according to the latest developments in the field.

The up-dated subject matter includes such progressive methods as merchandise management accounting and the application of statistical rules to stock planning and inventory

control. A new feature in this edition is the inclusion of discussion problems that encourage the student to go beyond the mathematical relationship to consider the underlying principles involved. The material coincides with the topics covered in *Techniques of Retail Merchandising*, 2d edition, 1956; thus it may be used as a companion book or by itself.

John W. Wingate is professor of business administration, City College, New York. Elmer O. Schaller, is professor of retailing and associate dean, New York University School of Retailing. Irving Goldenthal is a management consultant.

ROBERT G. NESBIT

Problems in Marketing, 3d ed., by Milton P. Brown, Wilbur B. England, and John B. Matthews, Jr. New York: McGraw-Hill Book Company, Inc., 1961, vii plus 862 pages. $8.95.

Users of this Harvard Business School case book will welcome the third edition, which offers thirty-seven new cases out of a total of seventy six, with some of the held-over cases updated. In keeping with the broad, managerial approach to marketing currently in vogue, the third edition has a new section on "The Marketing Mix." Also in response to the current attention being given to the consumer as the focus of marketing effort, the number of cases on demand measurement and consumer behavior has been expanded.

The section on merchandising, carried in both the first and second editions, is now named "Product Planning and Policy." The meaning of "merchandising" has always involved some ambiguity. With this edition, the authors forego the usual statements of apology for its more correct usage by employing the new term, which is appropriate enough.

Compared with the 1957 second edition, the third edition contains fewer cases (76 *vs.* 78) but is larger in size (122 pages more). The authors contend that this has made it possible to include "greater detail not only on each company's marketing operation but also on the other functional areas which impinge on and are affected by the company's marketing strategy." No doubt broadening the framework within which a student must develop and support alternative courses of action heightens a case's semblance to reality. Nonetheless, the Harvard cases are generally quite challenging. Introducing subordinate or related "issues" makes the assignment even more demanding, and sometimes masks the "principles" a case may help illustrate or around which a discussion may be developed. Those considering the book from a retailing standpoint will note that the broader treatment helps bring out more explicitly the retailer's position where a case's "main issues" appear to lie elsewhere. On the other hand, the number of cases portraying the marketing problems of specific retailers has been reduced from eight in the second edition to five in the third.

Although, as in previous practice, text material is briefly set forth at the beginning of each chapter or section, *Problems in Marketing* is primarily a book of cases.

HENRY GOMEZ

Retailers' Costs of Sales Tax Collection in Ohio, by James C. Yocum, Bureau of Business Research Monograph Number 100. Columbus, Ohio: The Ohio State University, 1961, 163 pp. $5.00.

James C. Yocum of the Bureau of Business Research at Ohio State University has completed the first study of the actual costs to the retailer of collecting sales tax in Ohio. Cost of collecting Ohio State sales tax was found to average 14.84 percent of the previous year's tax. Eliminating the Ohio stamp plan (that is not used in other states), the cost was 7.64 percent of tax collections.

The study is based on a scientific probability sample. The facts presented should be of great interest to retailers, especially those with multiple operations.

The book details costs associated with men's clothing stores, drugstores, restaurants and hotels, grocery stores, department stores, variety stores, and hardware stores.

Revolution in Retailing, by Christina Fulop. London, England: Institute of Economic Affairs, Barrie and Rockliff, 1961, 47 pages. 50 cents.

In this booklet, Christina Fulop urges the elimination of resale price maintenance and favors the repeal of laws controlling retail store hours. Department stores, she states, have been standing still since 1950. Resale price maintenance and emphasis on brand names are responsible for this static position, she believes, since they reduce the customer's incentive to travel in search of more favorable pricing. Merchants have been discouraged from discounting both by the resale price maintenance laws and the refusal of manufacturers to supply them with needed merchandise.

The first two sections of this book cover innovations and postwar developments within the retailing complex of England. Section three examines the "public policy"; *i.e.,* the resale price maintenance and retail store acts, plus the consumer protection acts and their related regulations. Section four sets forth recommendations.

Discount houses in England are described as roughly comparable to our West Coast "closed door" stores. Merchants who plan to "go discount" are handicapped by resale price maintenance and the refusal of manufacturers to supply them with needed merchandise. Shades of American retailing history!

Mail-order firms have been extremely successful in Britain. Sales in 1957 were about $600 annually. Mail-order firms in Great Britain are somewhat comparable to our door-to-door sales firms That is, representatives sell from catalogues, extend credit, and organize clubs. Both branded and unbranded lines are sold through this outlet. Miss Fulop asks, "Why in a densely populated country boasting half-a-million shops, well serviced by public transport, and a more widespread ownership of cars, should mail-order sales be rising?" She answers the question by describing the lengths to which mail-order firms go to sell quality merchandise and develop competent salespeople.

Cooperative societies have not been sharing in the retailing growth. Reasons seem to be their lack of success in attracting "first class experienced executives"; their use of inexperienced management, an error compounded by boards composed of members; and the continuation of dividend payments at all costs.

Chain stores seem to be growing in Great Britain at this time. Having basically the same advantages as in America, this type of retailing has shown an increase during postwar years, both in share of retail sales and number of outlets.

British restrictions on store hours come under Miss Fulop's scrutiny. She believes that the repeal of the act limiting the "open" time would not lead, as feared, to excessive hours for employees. Instead, she believes that the pattern of store hours by different retailers would change. Unfortunately, Miss Fulop did not explore the patterns that have emerged in the United States during the recent tendency to increase store hours and number of days open.

Faulty economic reasoning may be found in her discussion of the lack of low rent premises in Great Britain as a deterrent to the growth of low margin retailing. Perhaps she has confused rent as an unavoidable expense rather than as a payment for high volume location. Using her reasoning, it would follow that one of the major reasons for the growth of discounting in the United States is the availability of low rent land. This is just not so. The ability to attract customers in such numbers that overhead becomes insignificant is a more plausible reason. High sales per square foot are an indication of this ability.

DAVID J. RACHMAN

Top Management Handbook, edited by H. B. Maynard. New York: McGraw-Hill Book Company, Inc., 1960, xii plus 1,236 pages. $17.50.

The task of managing, as the editor points out in his preface, is both an art and a science. Though it is possible, he explains, to

identify principles and practices used successfully by managers, the variables in situations confronting them are too numerous for easy classification. Likewise, the act of managing is so personal in nature that there is no "one best way" of performing even the simplest managerial task. Management, he continues is in large part an art. Just as painters would not agree that there is "one best way" to treat a given subject on canvas, so the task of managing will be carried out in many different ways, depending on the temperament, experience, and personal skills of the manager, as well as upon the specific environment in which he works.

This volume is termed a "handbook"—apparently because the editor, authors, and managers, in general, have large hands. Since it includes 1,236 pages, it seems to this reviewer more of an "Encyclopedia in One Volume." Certainly it brings together in convenient reference form the body of knowledge that has developed rapidly in the past few years on the "art and science of managing." The sixty different authors, all of whom are top managers of well-known firms, describe what they do *while they manage.*

The five sections of the volume include: The Managing Function; Management by Objectives; Managing People; Measurement and Control, Managing the Future, Activity Area Management; and "Other Aspects of Top Management."

The editor-in-chief, H. B. Maynard is president of Maynard Research Council. Contributors are managers of large, medium, and small companies, who guide a wide variety of industries, from extractive, manufacturing and processing, to retailing, insurance, and service. The one thing they seem to have in common is a capacity for creative thinking.

SALLIE SEWELL

Studying Customer Image

(*Continued from page 8*)

lems. For them travel time assumes relatively less importance than does ease of access.

How should one weight these determinants of locational convenience for the two different groups of suburbanites? Predictions based on Reilly's Law might be less accurate than guesses because locational convenience is an image determined largely by sign expectancies posed by traffic barriers, physical congestion, and access routes not immediately measurable in spatial or temporal terms.

Similar problems appear with merchandise suitability and value for price. (Adequacy of promotion effort and store services are further variables which have muddied our efforts at understanding thus far.) Nevertheless we are progressing in understanding the dynamics of "birth–death" processes and the importance of each of the major image dimensions in interactions under varying frames of reference. We have mapped the major dimensions of store image and we know a good deal about their determinants. On an item-by-item basis we can predict with some accuracy the types and exact locations of stores people will enter when shopping. There is much that we do not know, of course, and we have a long road to travel before we can meet the management challenge of image. Yet it was only a few years back, in 1959, that conferees at a round table on corporate image timidly concluded that there really was such a thing—because people were able to make distinctions between companies.[6]

[6] Proceedings of the Fourteenth Annual Conference, American Association for Public Opinion Research, *Public Opinion Quarterly,* Fall 1959, p. 427.

Electronic Data Processing

(*Continued from page 16*)

to decide, after a computer system has been programmed, that an investigation of control requirements is in order.

Recommendations

To summarize, when considering automation, challenge your present procedures. Computers are great and useful tools, but not for everybody. As a guide to making your decision, ask: (*a*) Is an electronic data-processing system the best solution to my personal data-processing problem and (*b*) is it economically feasible? The cost differential between your present system and proposed automation can often be closed. And it should be closed before you sign an order, because the difference—the real saving—is not between your present system and the electronic data-processing system, but should be between the proposed electronic data-processing system and the best manual system available.

Next, encourage development of a systems department in your store. A staff consisting initially of only one person is a start that will pay rich future dividends. Moreover, when you select such a person, do not select someone whom you "don't know what to do with," but one that you "can't spare." He will pay his own way the first year if you have him analyze and challenge the present systems.

Third, consider the possible future implications of data processing. All that you purchase today may be affected by data-processing equipment that is coming along tomorrow. Included here are registers, imprinters, plastic plates, and addressing equipment.

Fourth, remember that proper planning is the foundation of a good system; proper timing is essential for a smooth conversion. Planning must be right for procedures, people, physical facilities, equipment delivery, conversion, and cut-over and control.

The final recommendation is to become acquainted, but not necessarily enamoured with, electronic data process. This new tool of management is powerful; it need not be awesome or mysterious.

Trading Area Networks

(*Continued from page 43*)

Acting as regulators or breaks are capital limitations and the high investment cost in modern retail facilities. On the other hand, the basic value of land, particularly in inflationary periods, as compared to the more ephemeral value of buildings, makes it easier to shift retail store facilities to new sites and use older sites for other purposes.

To prevent run-away changes in store facilities within a competitive society, sound planning by individual companies is essential. Such planning must evaluate the potential needs of the market area as well as anticipate store location moves by competitors.

Assuming that retail society behaves rationally (which it must, or face the financial consequences), then strong and well-informed competition is the best agent for maintaining dynamic equilibrium within market areas.

Attitude of College Students

(*Continued from page 48*)

inaccurate image of career in their minds."

"Retailing recruiters tend to emphasize negative aspects (hours, relocation, pressure, etc.) and neglect to outline advantages . . . retailers could employ positive hard sell in recruiting."

"College students are not aware of the variety of openings or the career opportunities in retailing. They also have an erroneous picture of the hours and working conditions."

"Many college students tend to shy away from retailing careers because of three principal impressions: (1) the industry requires a great deal of hard work and long hours; (2) retailing does not appear to have glamour and prestige; (3) advancement is relatively slow."

"Few students and faculty members know the opportunities in retailing . . . about 80 percent of the 200 we recruit annually on campuses had not thought of retailing until our intense missionary work, literature, and personal contacts encouraged them to sign up for interviews."

There were other comments in similar vein. At least one respondent felt that college professors discouraged students from considering careers in retailing.

Summary

Several significant points emerge from this survey. First, the students have considerable misunderstanding of the conditions and opportunities in retailing. Second, this misunderstanding is harmful to the industry, since the number of college students who seek a career in retailing is not proportionate to the needs of the industry for executive trainees. Several lines of action are open to retail leaders.

One, they might undertake a definite program of education to let the students know the facts.

Two, in employing students on a part-time basis during holidays, they should let them meet executives, learn something of managerial activities, and gain a favorable image of retail opportunities in every possible way.

Three, retail executives should take advantage of opportunities to lecture at colleges and to participate in school events.

The value of such action is illustrated by the large firm cited above which now hires annually over two hundred graduates. What they have done, others can do. Also, as more and more firms succeed in hiring—*and* effectively utilizing—college graduates, the image of retail executives should improve.

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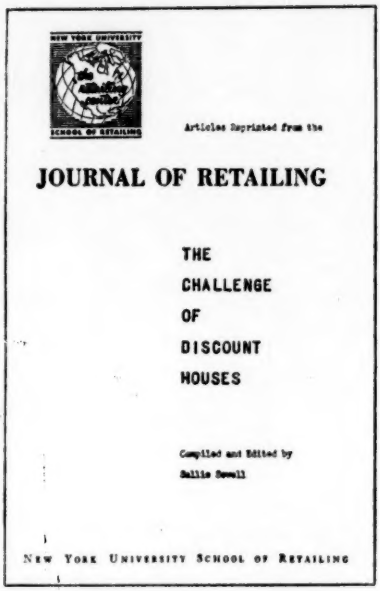

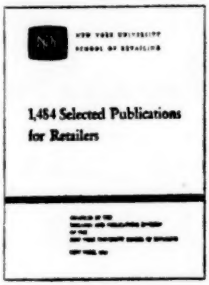

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